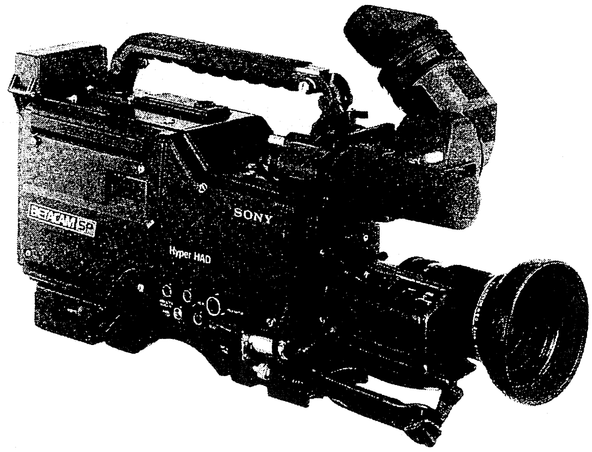
SONY

VTR IN CAMERA

BVW-400AP


BETACAM SP
SONY
Hyper HAD

BETACAM SP

MAINTENANCE MANUAL

Volume 2 1st Edition (Revised 4)
Serial No. 40001 and Higher

X-RAY RADIATION WARNING

Be sure that parts replacement in the high voltage block and adjustments made to the high voltage circuits are carried out precisely in accordance with the procedures given in this manual.

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BLOCK DIAGRAMS

OVERALL BLOCK DIAGRAM(CAMERA)

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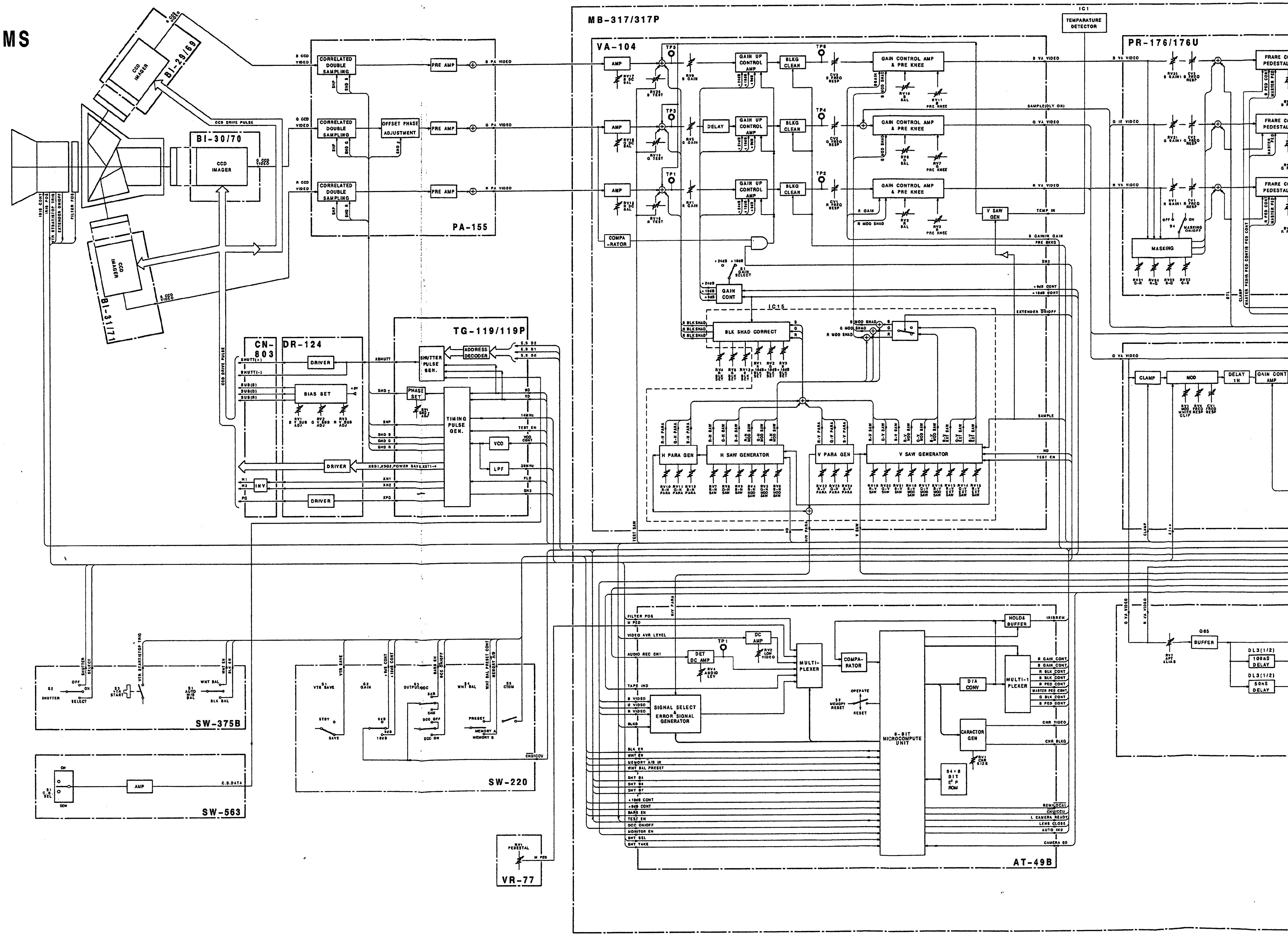
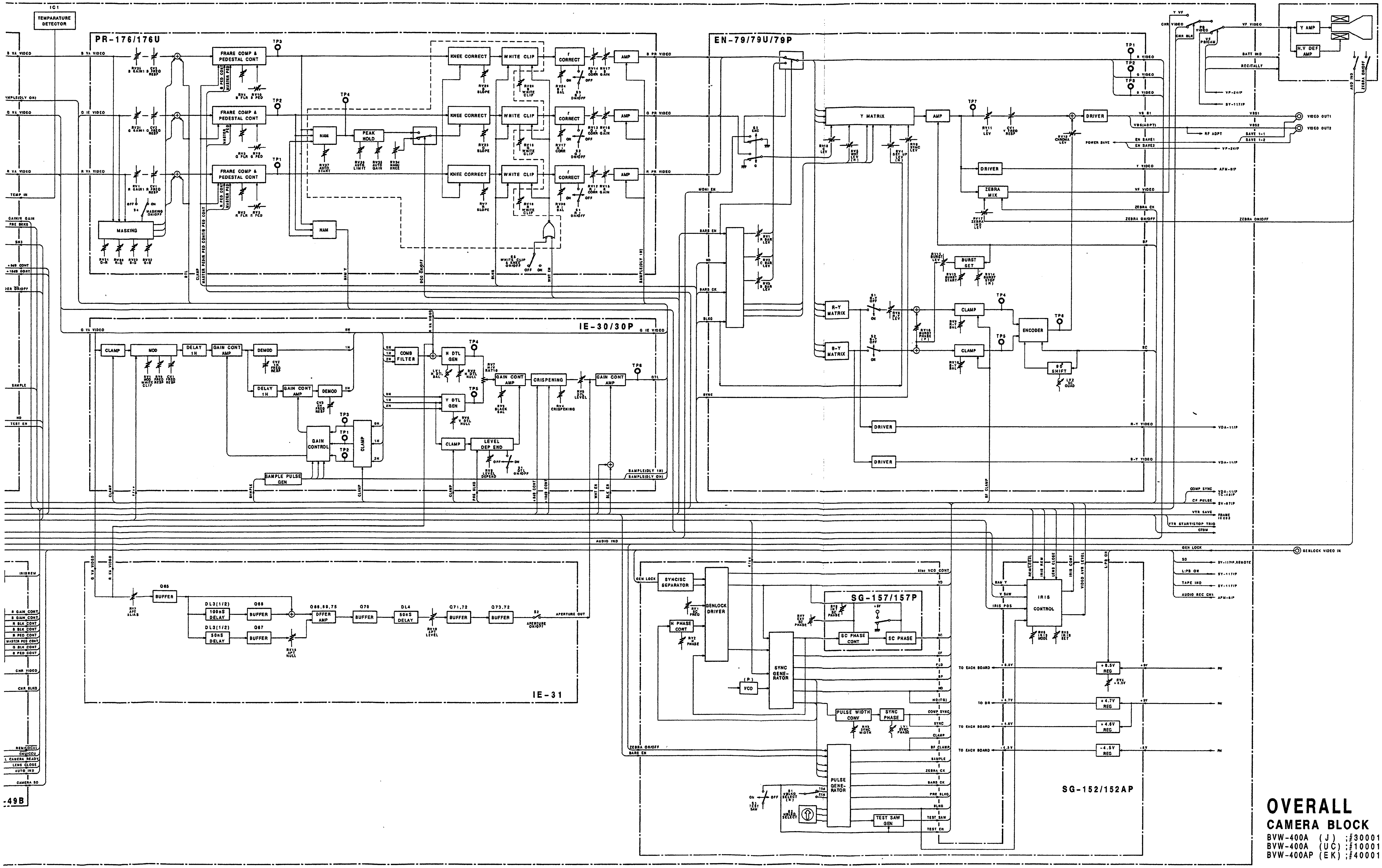
S/N; 10001 through 10027(UC)
30001 through 30030(J)
40001 through 40031(EK)
BI-69/70/71 Boards
S/N; 10028 and higher(UC)
30031 and higher(J)
40032 and higher(EK)


BI-29/69
CCD IMAGER
B CCD VIDEO
BI-30/70
CCD IMAGER
G CCD VIDEO
BI-31/71
R CCD VIDEO
CCD DRIVE PULSE
IRIS CONT
IRIS POS
VTR START/STOP TRIG
EXTENDER ON/OFF
FILTER POS
CORRELATED DOUBLE SAMPLING
OFFSET PHASE ADJUSTMENT
PRE AMP
B PA VIDEO
G PA VIDEO
R PA VIDEO
PA-155
CN-803
DR-124
DRIVER
BIAS SET
SHUTT(+)
SHUTT(-)
SUB(B)
SUB(G)
SUB(R)
INV
TG-119/119P
SHUTTER PULSE GEN.
ADDRESS DECODER
PHASE SET
TIMING PULSE GEN.
VCO
LPF
MB-317/317P
VA-104
AMP
TP5
TP3
TP1
TP6
TP4
TP2
DELAY
GAIN UP CONTROL AMP
BLKG CLEAN
GAIN CONTROL AMP & PRE KNEE
COMPA-RATOR
GAIN CONT
GAIN SELECT
IC15
BLK SHAD CORRECT
H PARA GEN
H SAW GENERATOR
V PARA GEN
V SAW GENERATOR
V SAW GEN
IC1
TEMPARATURE DETECTOR
B VA VIDEO
G VA VIDEO
R VA VIDEO
TEMP IN
PR-176/176U
FRARE C PEDESTAL
MASKING
CLAMP
MOD
DELAY 1H
GAIN CONT AMP
Q65
BUFFER
DL3(1/2)
100nS DELAY
50nS DELAY
SW-375B
S2 SHUTTER
S3 VTR START
S1 AUTO WHT BAL
SW-563
AMP
C.S.DATA
SW-220
S1 VTR SAVE
S2 GAIN
S3 OUTPUT/DCC
S4 WHT BAL
S5 CTCM
VR-77
RV1 PEDESTAL
M PED
SIGNAL SELECT & ERROR SIGNAL GENERATOR
DET DC AMP
DC AMP
MULTI-PLEXER
COMPA-RATOR
8-BIT MICROCOMPUTE UNIT
D/A CONV
MULTI-PLEXER
CARACTOR GEN
64×8 BIT E²P ROM
HOLD& BUFFER
S2 MEMORY RESET
AT-49B

OVERALL(CAMERA) OVERALL(CAMERA)

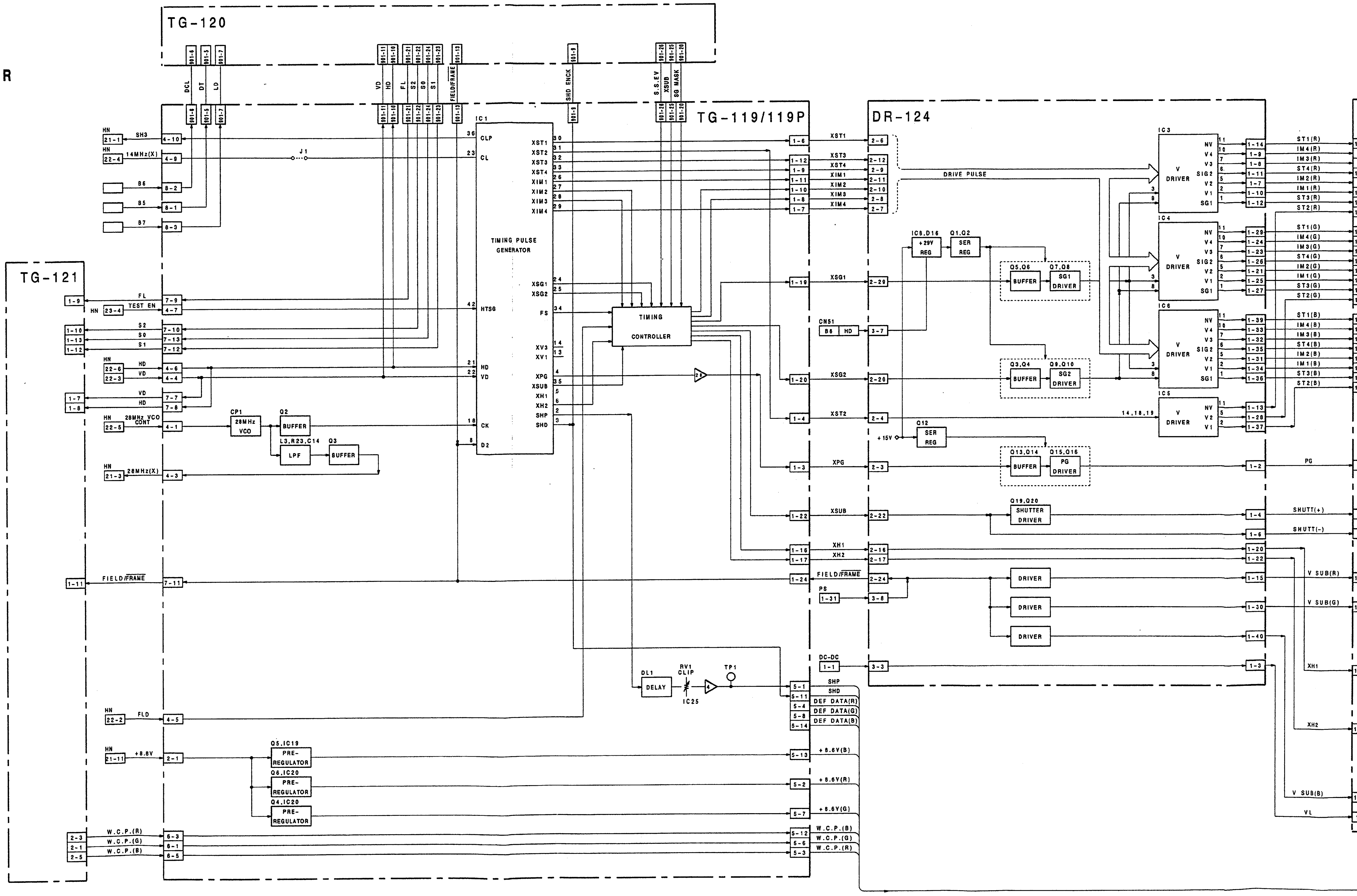


IC1
TEMPARATURE DETECTOR
PR-176/176U
B VA VIDEO
G VA VIDEO
R VA VIDEO
FRARE COMP & PEDESTAL CONT
TP3
TP2
TP1
TP4
NAM
PEAK HOLD
KNEE CORRECT
WHITE CLIP
γ CORRECT
AMP
B PR VIDEO
G PR VIDEO
R PR VIDEO
MASKING
EN-79/79U/79P
Y MATRIX
AMP
DRIVER
ZEBRA MIX
BURST SET
R-Y MATRIX
B-Y MATRIX
CLAMP
ENCODER
90° SHIFT
VIDEO OUT1
VIDEO OUT2
R-Y VIDEO
B-Y VIDEO
Y AMP
H.V DEF AMP
IE-30/30P
G VA VIDEO
G IE VIDEO
CLAMP
MOD
DELAY 1H
GAIN CONT AMP
DEMOD
COMB FILTER
H DTL GEN
V DTL GEN
GAIN CONT AMP
CRISPENING
GAIN CONTROL
LEVEL DEP END
SAMPLE PULSE GEN
IE-31
BUFFER
DL3(1/2) 100nS DELAY
DL3(1/2) 50nS DELAY
DFFER AMP
DL4 50nS DELAY
APERTURE OUT
AUDIO IND
SG-157/157P
SYNC/SC SEPARATOR
GENLOCK DRIVER
H PHASE CONT
SC PHASE CONT
SC PHASE
SYNC GENE-RATOR
VCO
PULSE WIDTH CONV
SYNC PHASE
PULSE GENE-RATOR
TEST SAW GEN
IRIS CONTROL
+8.5V REG
+4.7V REG
+4.8V REG
-4.5V REG
GENLOCK VIDEO IN
SG-152/152AP
-49B

OVERALL
CAMERA BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

CCD DRIVER
CCD BIAS
CCD PREAMP
TIMING GENERATOR


TG-120
TG-119/119P
TG-121
DR-124
DCL
DT
LD
VD
HD
FL
S2
S0
S1
FIELD/FRAME
SHD ENCK
S.S.EV
XSUB
SG MASK
IC1
TIMING PULSE GENERATOR
CLP
CL
HTSG
CK
D2
FS
XV3
XV1
XPG
XSUB
XH1
XH2
SHP
SHD
XST1
XST2
XST3
XST4
XIM1
XIM2
XIM3
XIM4
XSG1
XSG2
TIMING CONTROLLER
SH3
14MHz(X)
J1
B6
B5
B7
TEST EN
28MHz VCO CONT
CP1
28MHz VCO
Q2
BUFFER
L3,R23,C14
LPF
Q3
28MHz(X)
FLD
+8.8V
Q5,IC19
PRE-REGULATOR
Q6,IC20
PRE-REGULATOR
Q4,IC20
PRE-REGULATOR
W.C.P.(R)
W.C.P.(G)
W.C.P.(B)
DL1
DELAY
RV1 CLIP
IC25
TP1
SHP
SHD
DEF DATA(R)
DEF DATA(G)
DEF DATA(B)
+8.6V(B)
+8.6V(R)
+8.6V(G)
DC-DC
CN51
B6 HD
PS
DRIVE PULSE
IC8,D16
+29V REG
Q1,Q2
SER REG
Q5,Q6
BUFFER
Q7,Q8
SG1 DRIVER
Q3,Q4
BUFFER
Q9,Q10
SG2 DRIVER
Q12
SER REG
+15V
Q13,Q14
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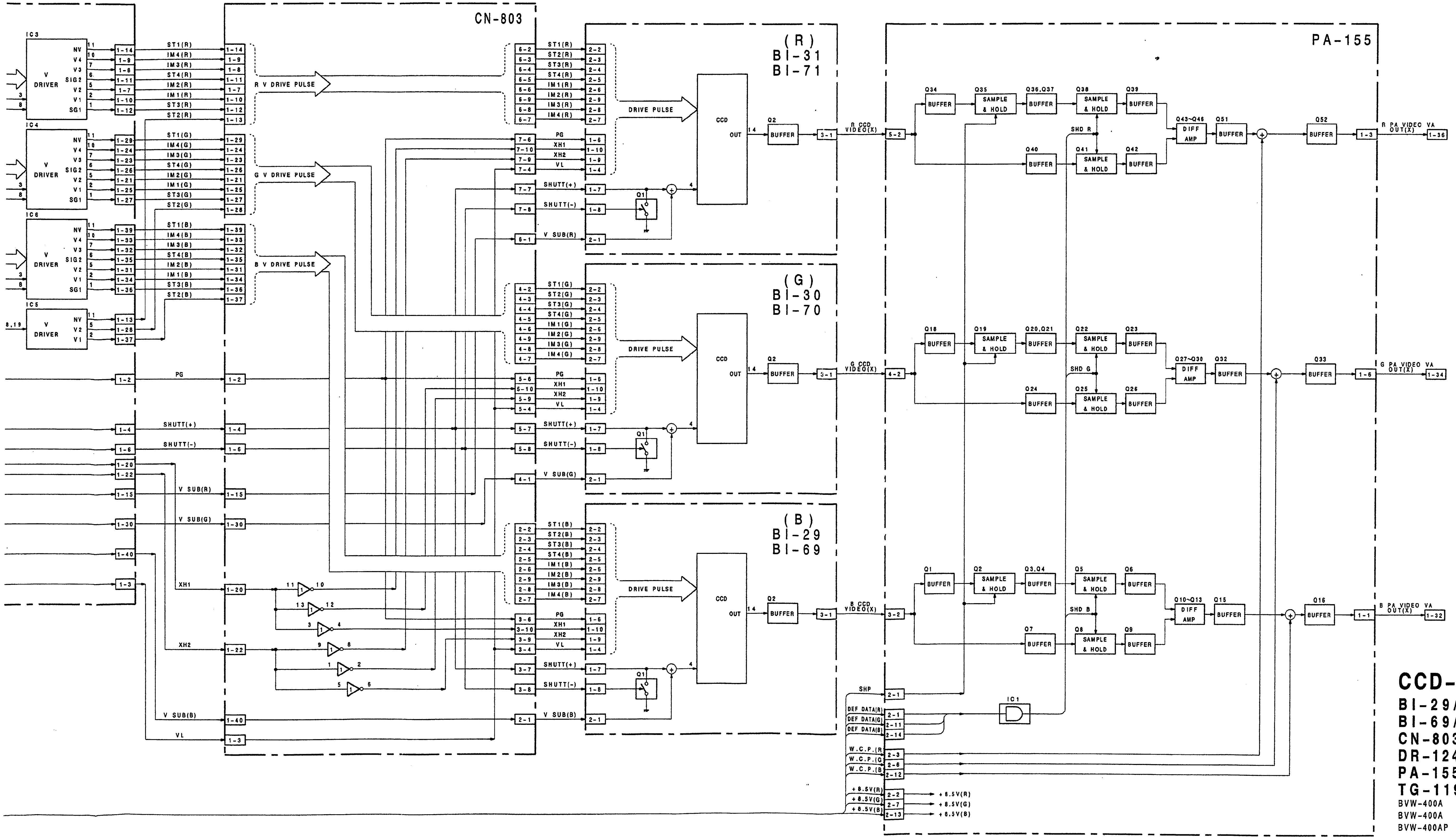
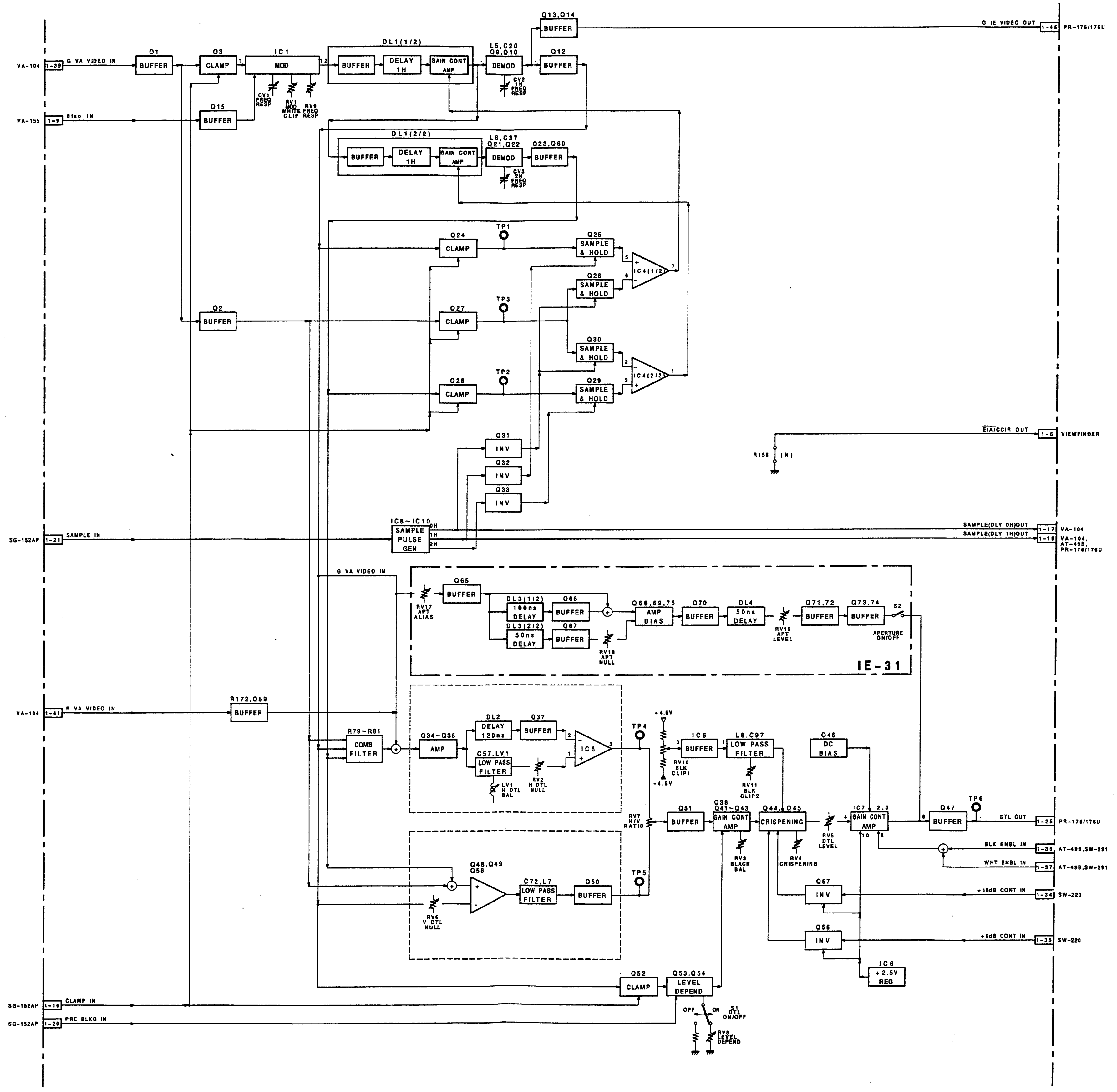
Q15,Q16
PG DRIVER
Q19,Q20
SHUTTER DRIVER
DRIVER
DRIVER
DRIVER
IC3
IC4
IC6
IC5
V DRIVER
NV
V4
V3
SIG2
V2
V1
SG1
14,18,19
ST1(R)
IM4(R)
IM3(R)
ST4(R)
IM2(R)
IM1(R)
ST3(R)
ST2(R)
ST1(G)
IM4(G)
IM3(G)
ST4(G)
IM2(G)
IM1(G)
ST3(G)
ST2(G)
ST1(B)
IM4(B)
IM3(B)
ST4(B)
IM2(B)
IM1(B)
ST3(B)
ST2(B)
PG
SHUTT(+)
SHUTT(-)
V SUB(R)
V SUB(G)
XH1
XH2
V SUB(B)
VL

Note; BI-29/30/31
S/N: 10001-10027(UC)
30001-30030(J)
40001-40031(EK)
BI-69/70/71
S/N: 10028 and higher(UC)
30031 and higher(J)
40032 and higher(EK)


IC3
IC4
IC6
IC5
V DRIVER
NV
V4
V3
SIG2
V2
V1
SG1
8,19
ST1(R)
IM4(R)
IM3(R)
ST4(R)
IM2(R)
IM1(R)
ST3(R)
ST2(R)
ST1(G)
IM4(G)
IM3(G)
ST4(G)
IM2(G)
IM1(G)
ST3(G)
ST2(G)
ST1(B)
IM4(B)
IM3(B)
ST4(B)
IM2(B)
IM1(B)
ST3(B)
ST2(B)
CN-803
R V DRIVE PULSE
G V DRIVE PULSE
B V DRIVE PULSE
PG
SHUTT(+)
SHUTT(-)
V SUB(R)
V SUB(G)
V SUB(B)
XH1
XH2
VL
(R)
BI-31
BI-71
(G)
BI-30
BI-70
(B)
BI-29
BI-69
DRIVE PULSE
CCD
OUT
Q1
Q2
BUFFER
R CCD VIDEO(X)
G CCD VIDEO(X)
B CCD VIDEO(X)
PA-155
Q34
Q35
Q36,Q37
Q38
Q39
SAMPLE & HOLD
SHD R
Q40
Q41
Q42
Q43~Q46
DIFF AMP
Q51
Q52
R PA VIDEO VA OUT(X)
Q18
Q19
Q20,Q21
Q22
Q23
SHD G
Q24
Q25
Q26
Q27~Q30
Q32
Q33
G PA VIDEO VA OUT(X)
Q3,Q4
Q5
Q6
SHD B
Q7
Q8
Q9
Q10~Q13
Q15
Q16
B PA VIDEO VA OUT(X)
SHP
DEF DATA(R)
DEF DATA(G)
DEF DATA(B)
IC1
W.C.P.(R)
W.C.P.(G)
W.C.P.(B)
+8.5V(R)
+8.5V(G)
+8.5V(B)

CCD-BLOCK
BI-29/30/31
BI-69/70/71
CN-803
DR-124
PA-155
TG-119/119P
BVW-400A (J) ;#30001-
BVW-400A (UC);#10001-
BVW-400AP (EK);#40001-

IMAGE ENHANCER


VA-104
1-39
G VA VIDEO IN
Q1
BUFFER
Q3
CLAMP
IC1
MOD
CV1 FREQ RESP
RV1 MOD WHITE CLIP
RV9 FREQ RESP
PA-155
1-9
8fsc IN
Q15
BUFFER
DL1(1/2)
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DELAY 1H
GAIN CONT AMP
L5,C20 Q9,Q10
DEMOD
CV2 1H FREQ RESP
Q13,Q14
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Q12
BUFFER
G IE VIDEO OUT
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DL1(2/2)
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DELAY 1H
GAIN CONT AMP
L6,C37 Q21,Q22
DEMOD
CV3 2H FREQ RESP
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TP1
Q24
CLAMP
Q25
SAMPLE & HOLD
Q26
SAMPLE & HOLD
IC4(1/2)
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TP3
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CLAMP
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SAMPLE & HOLD
IC4(2/2)
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INV
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(N)
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SAMPLE PULSE GEN
0H
1H
2H
SAMPLE(DLY 0H)OUT
1-17
VA-104
SAMPLE(DLY 1H)OUT
1-19
VA-104, AT-49B, PR-176/176U
G VA VIDEO IN
RV17 APT ALIAS
Q65
BUFFER
DL3(1/2)
100ns DELAY
Q66
BUFFER
DL3(2/2)
50ns DELAY
Q67
BUFFER
RV18 APT NULL
Q68,69,75
AMP BIAS
Q70
BUFFER
DL4
50ns DELAY
RV19 APT LEVEL
Q71,72
BUFFER
Q73,74
BUFFER
S2
APERTURE ON/OFF
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1-41
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R172,Q59
BUFFER
R79~R81
COMB FILTER
Q34~Q36
AMP
DL2
DELAY 120ns
Q37
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LOW PASS FILTER
LV1 H DTL BAL
RV2 H DTL NULL
IC5
TP4
+4.6V
-4.5V
RV10 BLK CLIP1
IC6
BUFFER
L8,C97
LOW PASS FILTER
RV11 BLK CLIP2
Q46
DC BIAS
RV7 H/V RATIO
Q51
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Q38 Q41~Q43
GAIN CONT AMP
RV3 BLACK BAL
Q44,Q45
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RV4 CRISPENING
RV5 DTL LEVEL
IC7
GAIN CONT AMP
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1-37
AT-49B,SW-291
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+18dB CONT IN
1-34
SW-220
Q56
INV
+9dB CONT IN
1-35
SW-220
IC6
+2.5V REG
Q48,Q49 Q58
RV6 V DTL NULL
C72,L7
LOW PASS FILTER
Q50
BUFFER
TP5
Q52
CLAMP
Q53,Q54
LEVEL DEPEND
OFF
ON
S1 DTL ON/OFF
RV8 LEVEL DEPEND
SG-152AP
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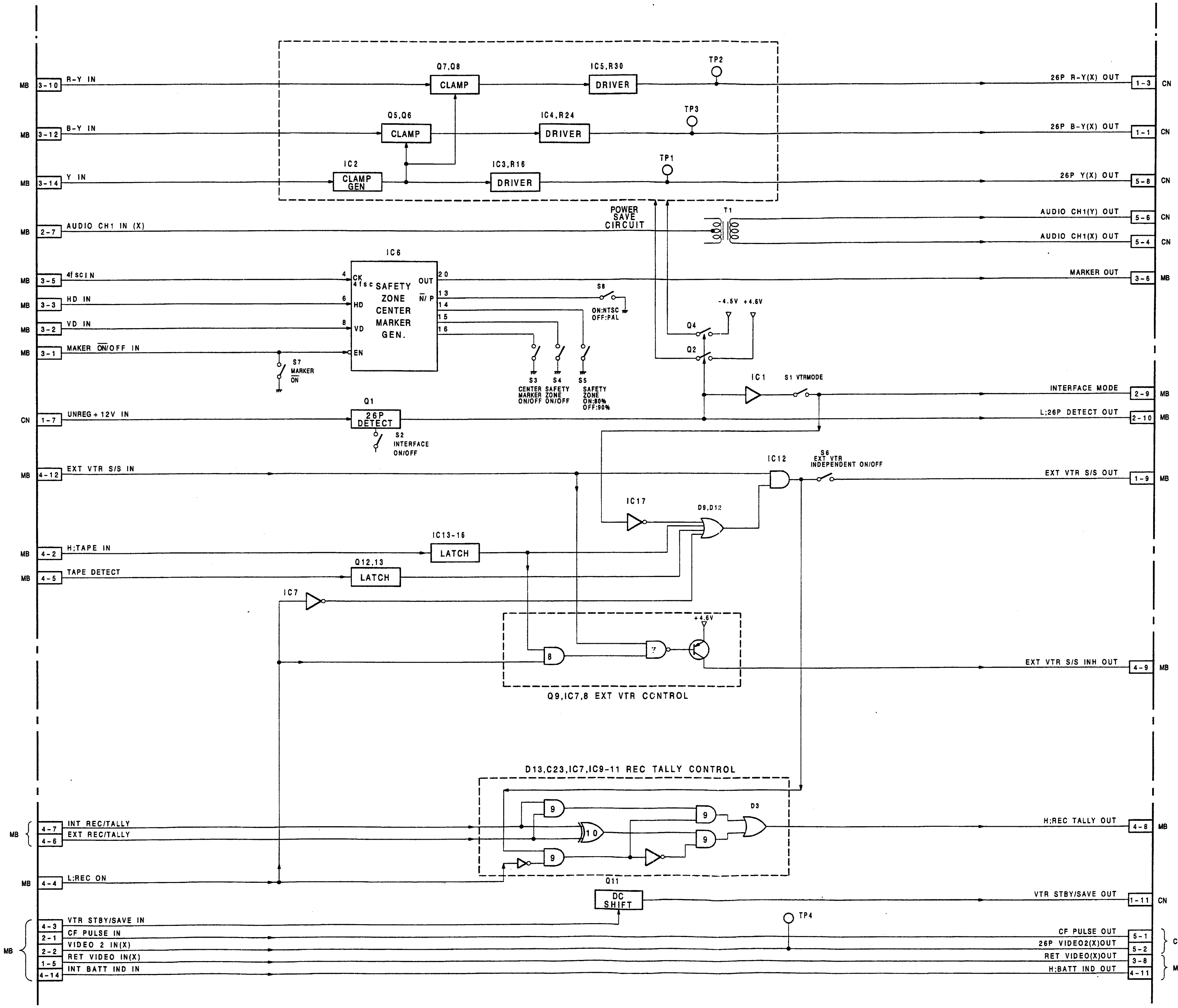
SG-152AP
1-20
PRE BLKG IN

IE-30/30P
IE-31
CAMERA BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

INTERFACE


MB 3-10 R-Y IN
MB 3-12 B-Y IN
MB 3-14 Y IN
MB 2-7 AUDIO CH1 IN (X)
MB 3-5 4fsc IN
MB 3-3 HD IN
MB 3-2 VD IN
MB 3-1 MAKER ON/OFF IN
CN 1-7 UNREG +12V IN
MB 4-12 EXT VTR S/S IN
MB 4-2 H;TAPE IN
MB 4-5 TAPE DETECT
MB 4-7 INT REC/TALLY
4-6 EXT REC/TALLY
MB 4-4 L;REC ON
4-3 VTR STBY/SAVE IN
2-1 CF PULSE IN
2-2 VIDEO 2 IN(X)
1-5 RET VIDEO IN(X)
4-14 INT BATT IND IN
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IC5,R30 DRIVER
TP2
Q5,Q6 CLAMP
IC4,R24 DRIVER
TP3
IC2 CLAMP GEN
IC3,R16 DRIVER
TP1
POWER SAVE CIRCUIT
T1
IC6
CK 4fsc
HD
VD
EN
SAFETY ZONE CENTER MARKER GEN.
OUT
N/P
20 13 14 15 16
S8
ON:NTSC
OFF:PAL
S7 MARKER ON
S3 CENTER MARKER ON/OFF
S4 SAFETY ZONE ON/OFF
S5 SAFETY ZONE ON:80% OFF:90%
-4.5V +4.6V
Q4
Q2
IC1
S1 VTRMODE
Q1 26P DETECT
S2 INTERFACE ON/OFF
IC12
S6 EXT VTR INDEPENDENT ON/OFF
IC17
D9,D12
IC13-16 LATCH
Q12,13 LATCH
IC7
+4.6V
8
7
Q9,IC7,8 EXT VTR CONTROL
D13,C23,IC7,IC9-11 REC TALLY CONTROL
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10
D3
Q11 DC SHIFT
TP4
26P R-Y(X) OUT 1-3 CN
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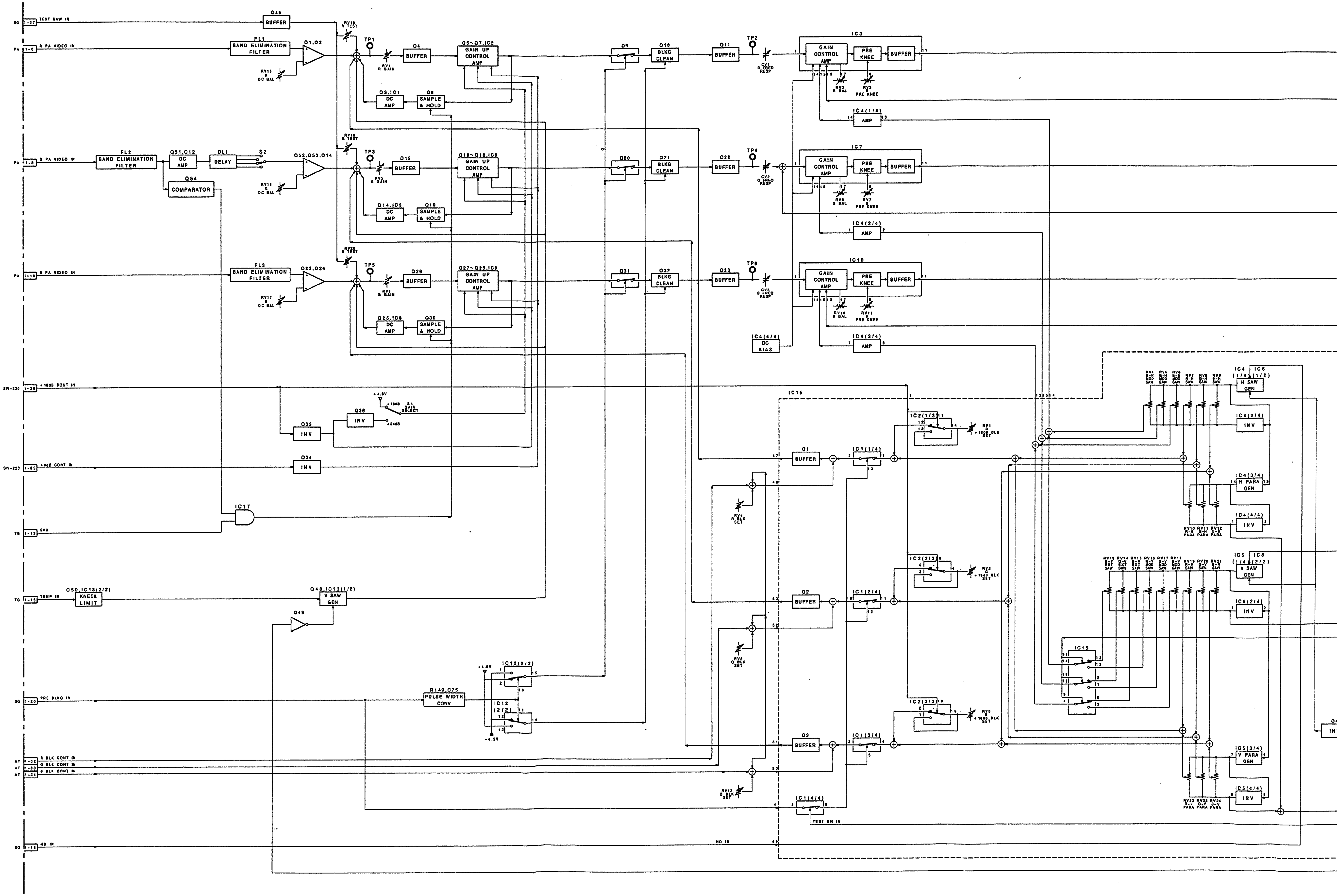
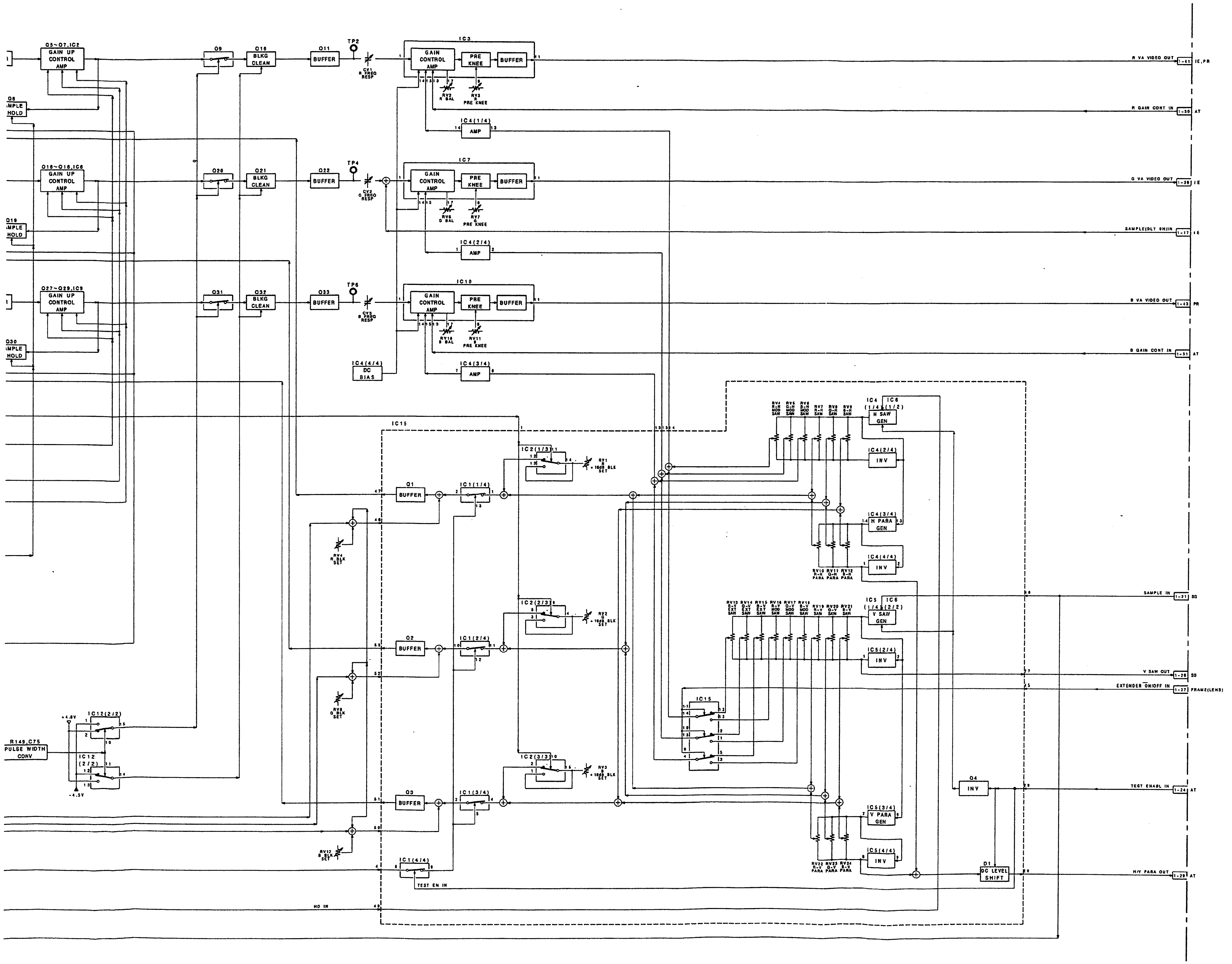
VTR STBY/SAVE OUT 1-11 CN
CF PULSE OUT 5-1
26P VIDEO2(X)OUT 5-2 CN
RET VIDEO(X)OUT 3-8
H;BATT IND OUT 4-11 MB

IF-298AJ/298A BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC);#10001-
BVW-400AP (EK);#40001-

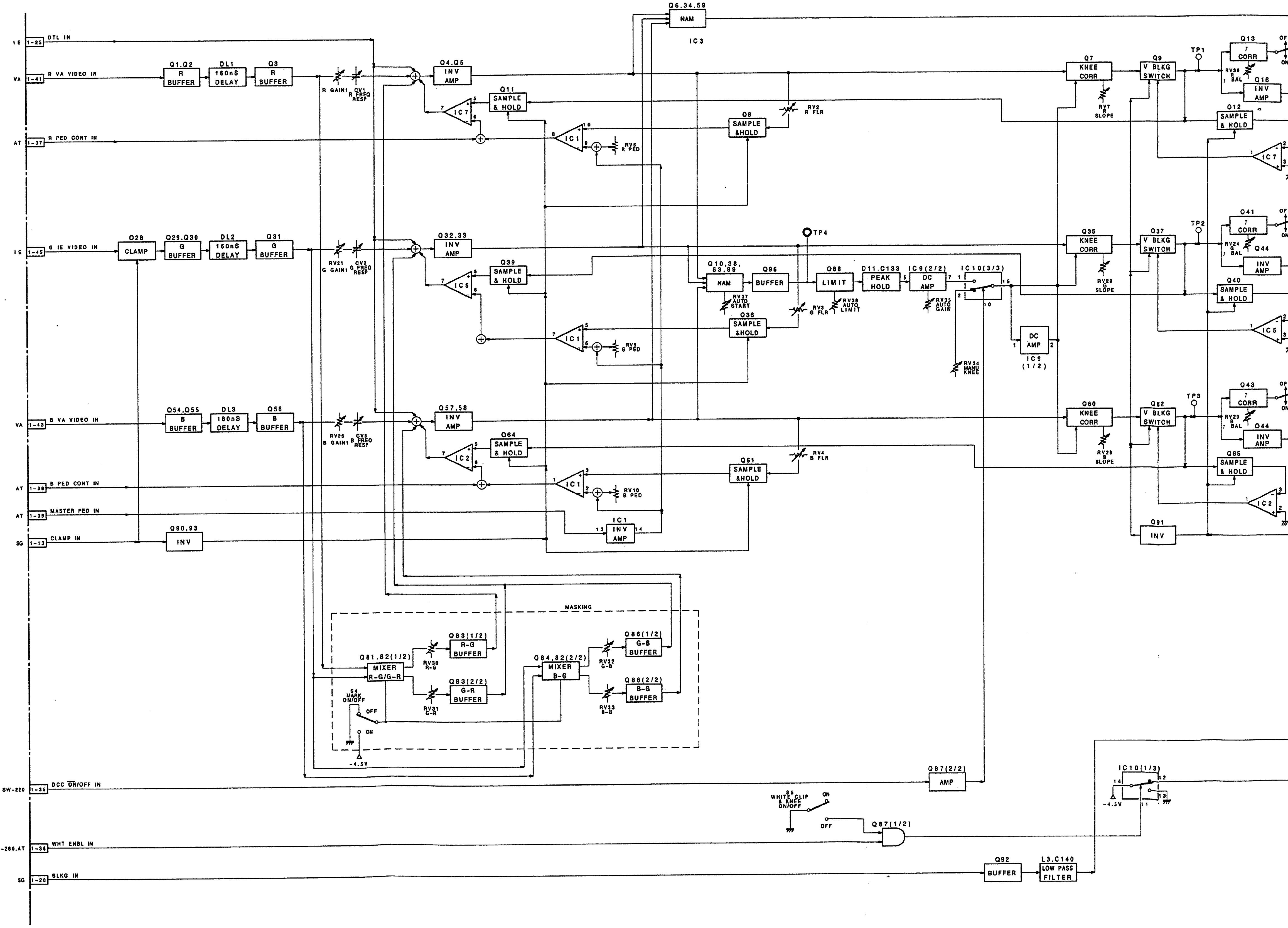
VIDEO AMP,BLACK SET,COMPE


SG 1-27 TEST SAW IN
PA 1-8 R PA VIDEO IN
PA 1-9 G PA VIDEO IN
PA 1-10 B PA VIDEO IN
SW-220 1-36 +18dB CONT IN
SW-220 1-35 +9dB CONT IN
TG 1-13 SH2
TG 1-15 TEMP IN
SG 1-20 PRE BLKG IN
AT 1-32 R BLK CONT IN
AT 1-33 G BLK CONT IN
AT 1-34 B BLK CONT IN
SG 1-18 HD IN
Q45 BUFFER
FL1 BAND ELIMINATION FILTER
FL2 BAND ELIMINATION FILTER
FL3 BAND ELIMINATION FILTER
Q1,Q2
Q51,Q12 DC AMP
DL1 DELAY
S2
Q54 COMPARATOR
Q52,Q53,Q14
Q23,Q24
RV15 R DC BAL
RV16 G DC BAL
RV17 B DC BAL
RV18 R TEST
RV19 G TEST
RV20 B TEST
TP1
TP3
TP5
RV1 R GAIN
RV5 G GAIN
RV9 B GAIN
Q4 BUFFER
Q15 BUFFER
Q26 BUFFER
Q5~Q7,IC2 GAIN UP CONTROL AMP
Q16~Q18,IC6 GAIN UP CONTROL AMP
Q27~Q29,IC9 GAIN UP CONTROL AMP
Q3,IC1 DC AMP
Q14,IC5 DC AMP
Q25,IC8 DC AMP
Q8 SAMPLE & HOLD
Q19 SAMPLE & HOLD
Q30 SAMPLE & HOLD
Q9
Q20
Q31
Q10 BLKG CLEAN
Q21 BLKG CLEAN
Q32 BLKG CLEAN
Q11 BUFFER
Q22 BUFFER
Q33 BUFFER
TP2
TP4
TP6
CV1 R FREQ RESP
CV2 G FREQ RESP
CV3 B FREQ RESP
IC3
IC7
IC10
GAIN CONTROL AMP
PRE KNEE
BUFFER
RV2 R BAL
RV3 R PRE KNEE
RV6 G BAL
RV7 G PRE KNEE
RV10 B BAL
RV11 PRE KNEE
IC4(1/4) AMP
IC4(2/4) AMP
IC4(3/4) AMP
IC4(4/4) DC BIAS
+4.6V
+18dB
S1 GAIN SELECT
+24dB
Q36 INV
Q35 INV
Q34 INV
IC17
Q50,IC13(2/2) KNEE& LIMIT
Q48,IC13(1/2) V SAW GEN
Q49
IC12(2/2)
IC12 (2/2)
+4.8V
-4.5V
R149,C75 PULSE WIDTH CONV
IC15
Q1 BUFFER
Q2 BUFFER
Q3 BUFFER
IC1(1/4)
IC1(2/4)
IC1(3/4)
IC1(4/4)
TEST EN IN
HD IN
IC2(1/3)
IC2(2/3)
IC2(3/3)
RV1 R +18dB BLK SET
RV2 G +18dB BLK SET
RV3 B +18dB BLK SET
RV4 R BLK SET
RV8 G BLK SET
RV12 B BLK SET
IC4 IC6 (1/4)(1/2) H SAW GEN
IC4(2/4) INV
IC4(3/4) H PARA GEN
IC4(4/4) INV
IC5 IC6 (1/4)(2/2) V SAW GEN
IC5(2/4) INV
IC5(3/4) V PARA GEN
IC5(4/4) INV
RV4 R-H MOD SAW
RV5 G-H MOD SAW
RV6 B-H MOD SAW
RV7 R-H SAW
RV8 G-H SAW
RV9 B-H SAW
RV10 R-H PARA
RV11 G-H PARA
RV12 B-H PARA
RV13 R-V EXT SAW
RV14 G-V EXT SAW
RV15 B-V EXT SAW
RV16 R-V MOD SAW
RV17 G-V MOD SAW
RV18 B-V MOD SAW
RV19 R-V SAW
RV20 G-V SAW
RV21 B-V SAW
RV22 R-V PARA
RV23 G-V PARA
RV24 B-V PARA
IC15
IN

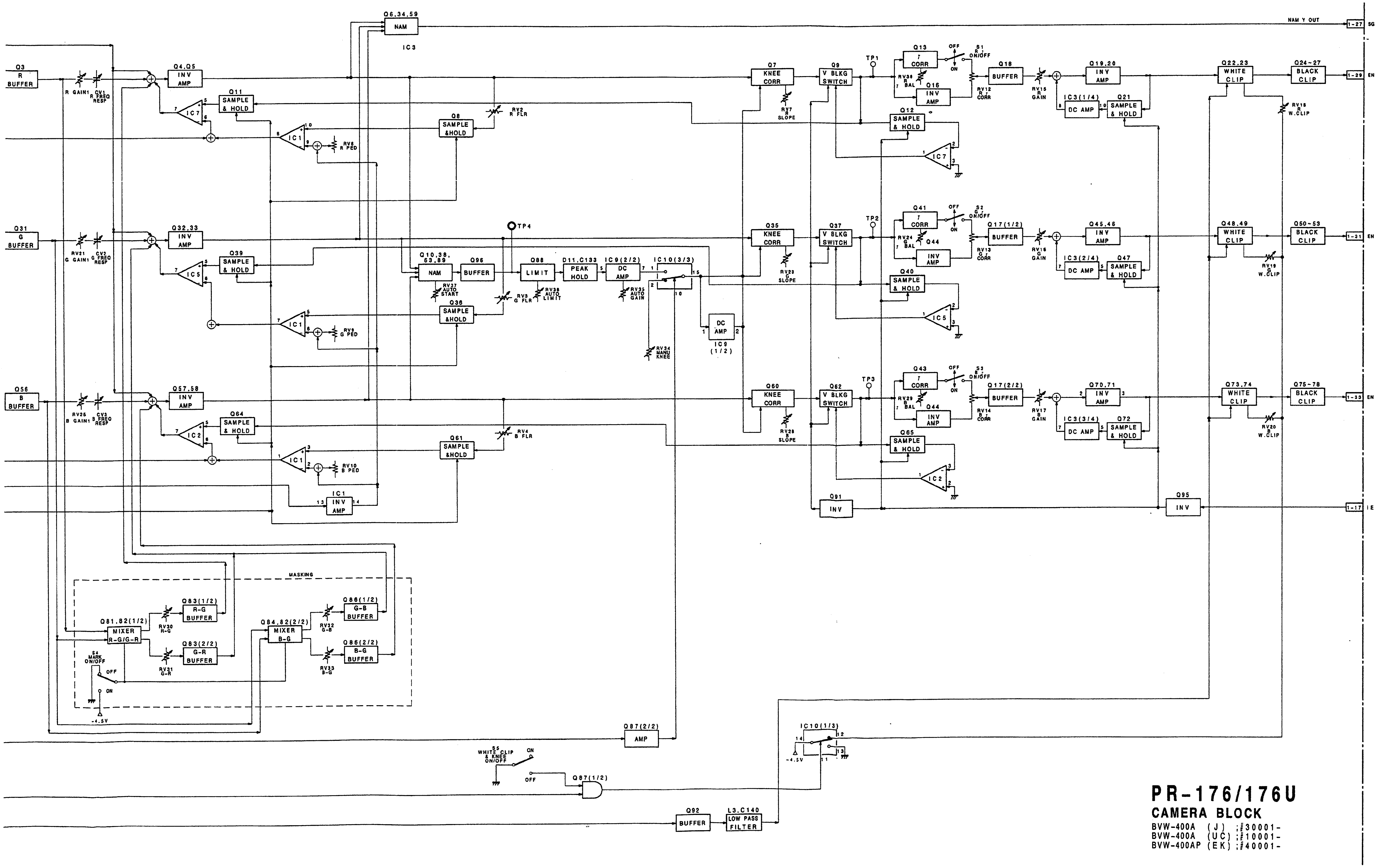

Q5~Q7,IC2
GAIN UP CONTROL AMP
Q8
SAMPLE HOLD
Q9
Q10
BLKG CLEAN
Q11
BUFFER
TP2
CV1
R FREQ RESP
IC3
GAIN CONTROL AMP
PRE KNEE
BUFFER
RV2
R BAL
RV3
R
PRE KNEE
IC4(1/4)
AMP
Q16~Q18,IC6
GAIN UP CONTROL AMP
Q19
SAMPLE HOLD
Q20
Q21
BLKG CLEAN
Q22
BUFFER
TP4
CV2
G FREQ RESP
IC7
GAIN CONTROL AMP
PRE KNEE
BUFFER
RV6
G BAL
RV7
G
PRE KNEE
IC4(2/4)
AMP
Q27~Q29,IC9
GAIN UP CONTROL AMP
Q30
SAMPLE HOLD
Q31
Q32
BLKG CLEAN
Q33
BUFFER
TP6
CV3
B FREQ RESP
IC10
GAIN CONTROL AMP
PRE KNEE
BUFFER
RV10
B BAL
RV11
B
PRE KNEE
IC4(4/4)
DC BIAS
IC4(3/4)
AMP
R VA VIDEO OUT
1-41
IE,PR
R GAIN CONT IN
1-30
AT
G VA VIDEO OUT
1-39
IE
SAMPLE(DLY ON)IN
1-17
IE
B VA VIDEO OUT
1-43
PR
B GAIN CONT IN
1-31
AT
IC15
Q1
BUFFER
IC1(1/4)
IC2(1/3)
RV1
R
+16dB BLK SET
RV4
R BLK SET
Q2
BUFFER
IC1(2/4)
IC2(2/3)
RV2
G
+16dB BLK SET
RV8
G BLK SET
Q3
BUFFER
IC1(3/4)
IC2(3/3)
RV3
B
+16dB BLK SET
RV12
B BLK SET
IC1(4/4)
TEST EN IN
HD IN
+4.8V
-4.5V
IC12(2/2)
IC12
(2/2)
R149,C75
PULSE WIDTH CONV
IC4 (1/4)
IC6 (1/2)
H SAW GEN
IC4(2/4)
INV
IC4(3/4)
H PARA GEN
IC4(4/4)
INV
RV4 R-H MOD SAW
RV5 G-H MOD SAW
RV6 B-H MOD SAW
RV7 R-H SAW
RV8 G-H SAW
RV9 B-H SAW
RV10 R-H PARA
RV11 G-H PARA
RV12 B-H PARA
IC5 (1/4)
IC6 (2/2)
V SAW GEN
IC5(2/4)
INV
IC5(3/4)
V PARA GEN
IC5(4/4)
INV
RV13 R-V EXT SAW
RV14 G-V EXT SAW
RV15 B-V EXT SAW
RV16 R-V MOD SAW
RV17 G-V MOD SAW
RV18 B-V MOD SAW
RV19 R-V SAW
RV20 G-V SAW
RV21 B-V SAW
RV22 R-V PARA
RV23 G-V PARA
RV24 B-V PARA
IC15
Q4
INV
D1
DC LEVEL SHIFT
SAMPLE IN
1-21
SG
V SAW OUT
1-28
SG
EXTENDER ON/OFF IN
1-37
FRAME(LENS)
TEST ENABL IN
1-24
AT
H/V PARA OUT
1-29
AT

VA-104
CAMERA BLOCK
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

GAMMA,MASKING,KNEE,SLOPE,W CLIP,DCC



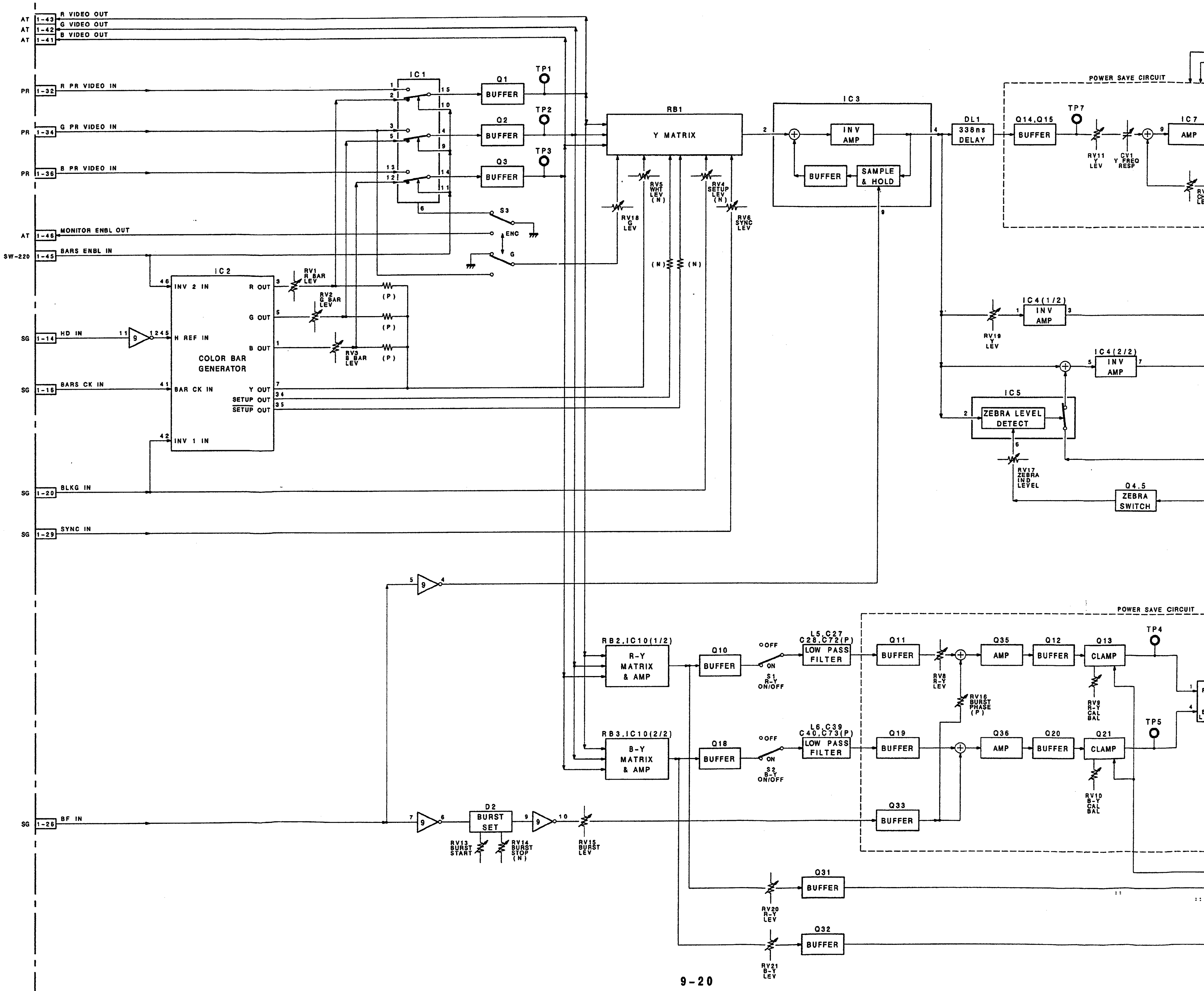
IE 1-25 DTL IN
VA 1-41 R VA VIDEO IN
AT 1-37 R PED CONT IN
IE 1-45 G IE VIDEO IN
VA 1-43 B VA VIDEO IN
AT 1-38 B PED CONT IN
AT 1-39 MASTER PED IN
SG 1-13 CLAMP IN
SW-220 1-33 DCC ON/OFF IN
SW-260,AT 1-36 WHT ENBL IN
SG 1-28 BLKG IN
Q1,Q2 R BUFFER
DL1 160nS DELAY
Q3 R BUFFER
Q28 CLAMP
Q29,Q30 G BUFFER
DL2 160nS DELAY
Q31 G BUFFER
Q54,Q55 B BUFFER
DL3 160nS DELAY
Q56 B BUFFER
Q90,93 INV
R GAIN1 CV1 R FREQ RESP
RV21 G GAIN1 CV2 G FREQ RESP
RV25 B GAIN1 CV3 B FREQ RESP
Q4,Q5 INV AMP
Q32,33 INV AMP
Q57,58 INV AMP
IC7
IC5
IC2
Q11 SAMPLE & HOLD
Q39 SAMPLE & HOLD
Q64 SAMPLE & HOLD
IC1
RV8 R PED
RV9 G PED
RV10 B PED
IC1 INV AMP
Q8 SAMPLE &HOLD
Q36 SAMPLE &HOLD
Q61 SAMPLE &HOLD
RV2 R FLR
RV3 G FLR
RV4 B FLR
Q6,34,59 NAM
IC3
TP4
Q10,38,63,89 NAM
RV37 AUTO START
Q96 BUFFER
Q88 LIMIT
RV36 AUTO LIMIT
D11,C133 PEAK HOLD
IC9(2/2) DC AMP
RV35 AUTO GAIN
IC10(3/3)
RV34 MANU KNEE
DC AMP IC9 (1/2)
Q7 KNEE CORR
RV7 R SLOPE
Q35 KNEE CORR
RV23 G SLOPE
Q60 KNEE CORR
RV28 B SLOPE
Q9 V BLKG SWITCH
Q37 V BLKG SWITCH
Q62 V BLKG SWITCH
TP1
TP2
TP3
Q13 γ CORR
RV38 R BAL
Q16 INV AMP
Q12 SAMPLE & HOLD
Q41 γ CORR
RV24 G BAL
Q44 INV AMP
Q40 SAMPLE & HOLD
Q43 γ CORR
RV29 B BAL
Q44 INV AMP
Q65 SAMPLE & HOLD
Q91 INV
MASKING
Q81,82(1/2) MIXER R-G/G-R
Q83(1/2) R-G BUFFER
Q83(2/2) G-R BUFFER
RV30 R-G
RV31 G-R
Q84,82(2/2) MIXER B-G
Q86(1/2) G-B BUFFER
Q86(2/2) B-G BUFFER
RV32 G-B
RV33 B-G
S4 MARK ON/OFF
OFF
ON
-4.5V
Q87(2/2) AMP
S5 WHITE CLIP & KNEE ON/OFF
Q87(1/2)
Q92 BUFFER
L3,C140 LOW PASS FILTER
IC10(1/3)

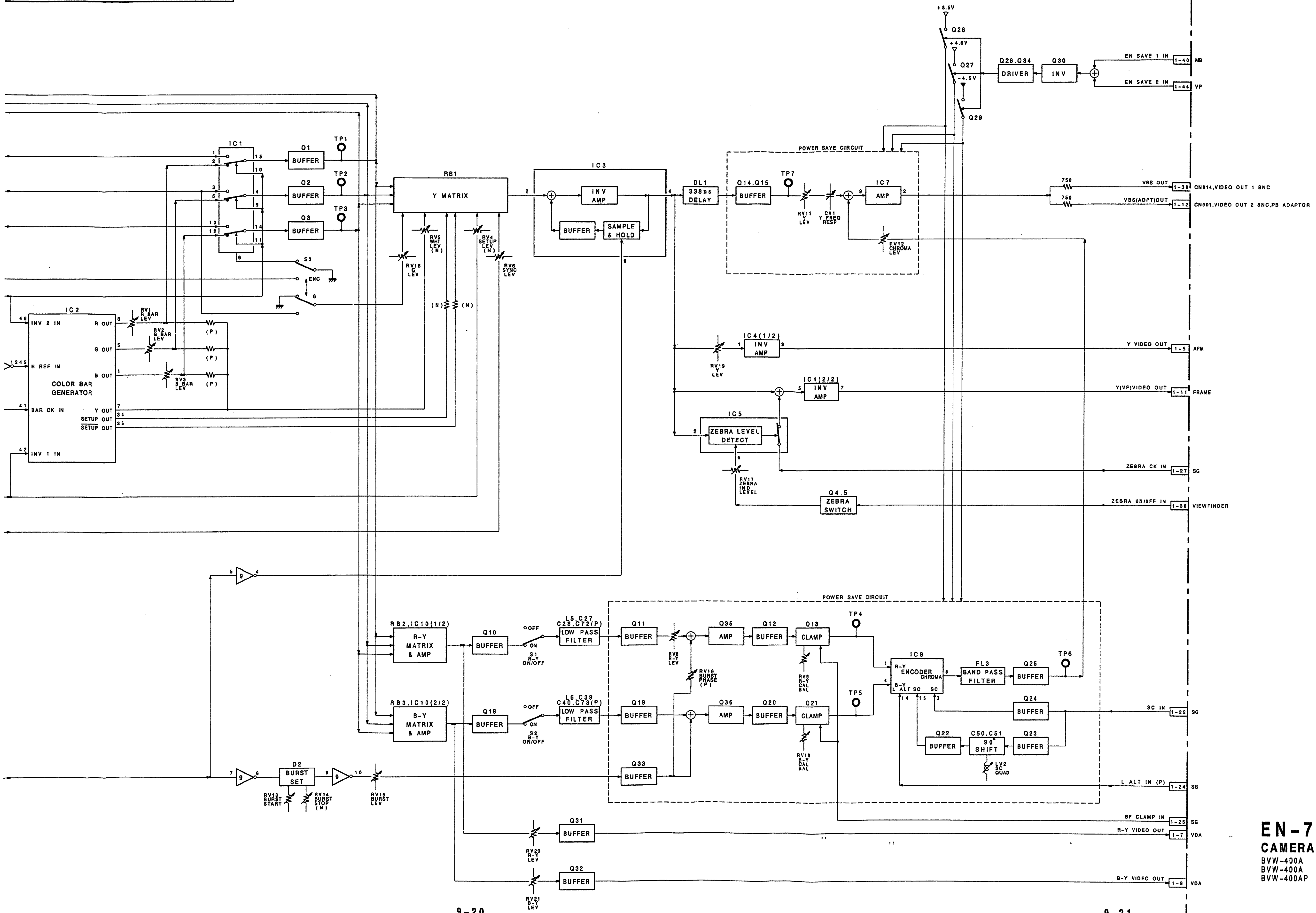

Q6,34,59
NAM
IC3
NAM Y OUT
1-27 SG
Q3
R
BUFFER
R GAIN1
CV1
R FREQ RESP
Q4,Q5
INV AMP
Q11
SAMPLE & HOLD
IC7
IC1
RV8
R PED
Q8
SAMPLE &HOLD
RV2
R FLR
Q7
KNEE CORR
RV7
R SLOPE
Q9
V BLKG SWITCH
TP1
Q13
γ CORR
OFF
ON
S1
R γ ON/OFF
RV36
R BAL
Q15
INV AMP
RV12
R γ CORR
Q18
BUFFER
RV15
R GAIN
Q19,20
INV AMP
IC3(1/4)
DC AMP
Q21
SAMPLE & HOLD
Q12
SAMPLE & HOLD
Q22,23
WHITE CLIP
RV18
R W.CLIP
Q24~27
BLACK CLIP
1-29 EN
Q31
G
BUFFER
RV21
G GAIN1
CV2
G FREQ RESP
Q32,33
INV AMP
Q39
SAMPLE & HOLD
IC5
TP4
Q10,38,63,89
NAM
RV37
AUTO START
Q96
BUFFER
Q88
LIMIT
RV3
G FLR
RV38
AUTO LIMIT
D11,C133
PEAK HOLD
IC9(2/2)
DC AMP
RV35
AUTO GAIN
IC10(3/3)
RV34
MANU KNEE
DC AMP
IC9 (1/2)
Q36
SAMPLE &HOLD
RV9
G PED
Q35
KNEE CORR
RV23
G SLOPE
Q37
V BLKG SWITCH
TP2
Q41
γ CORR
S2
G γ ON/OFF
RV24
G BAL
Q44
INV AMP
RV13
G γ CORR
Q17(1/2)
BUFFER
RV16
G GAIN
Q45,46
INV AMP
IC3(2/4)
DC AMP
Q47
SAMPLE & HOLD
Q40
SAMPLE & HOLD
Q48,49
WHITE CLIP
RV19
G W.CLIP
Q50~53
BLACK CLIP
1-31 EN
Q56
B
BUFFER
RV25
B GAIN1
CV3
B FREQ RESP
Q57,58
INV AMP
Q64
SAMPLE & HOLD
IC2
IC1
RV10
B PED
Q61
SAMPLE &HOLD
RV4
B FLR
IC1
INV AMP
Q60
KNEE CORR
RV28
B SLOPE
Q62
V BLKG SWITCH
TP3
Q43
γ CORR
S3
B γ ON/OFF
RV29
B BAL
Q44
INV AMP
RV14
B γ CORR
Q17(2/2)
BUFFER
RV17
B GAIN
Q70,71
INV AMP
IC3(3/4)
DC AMP
Q72
SAMPLE & HOLD
Q65
SAMPLE & HOLD
Q73,74
WHITE CLIP
RV20
B W.CLIP
Q75~78
BLACK CLIP
1-33 EN
Q91
INV
Q95
INV
1-17 IE
MASKING
Q81,82(1/2)
MIXER
R-G/G-R
Q83(1/2)
R-G BUFFER
RV30
R-G
Q83(2/2)
G-R BUFFER
RV31
G-R
Q84,82(2/2)
MIXER
B-G
Q86(1/2)
G-B BUFFER
RV32
G-B
Q86(2/2)
B-G BUFFER
RV33
B-G
S4
MARK ON/OFF
OFF
ON
-4.5V
Q87(2/2)
AMP
S5
WHITE CLIP & KNEE ON/OFF
ON
OFF
Q87(1/2)
IC10(1/3)
-4.5V
Q92
BUFFER
L3,C140
LOW PASS FILTER

PR-176/176U
CAMERA BLOCK

BVW-400A (J) ;30001-
BVW-400A (UC) ;10001-
BVW-400AP (EK) ;40001-

Y/R-Y/B-Y SIGNAL GEN,ENCODER,CB GEN

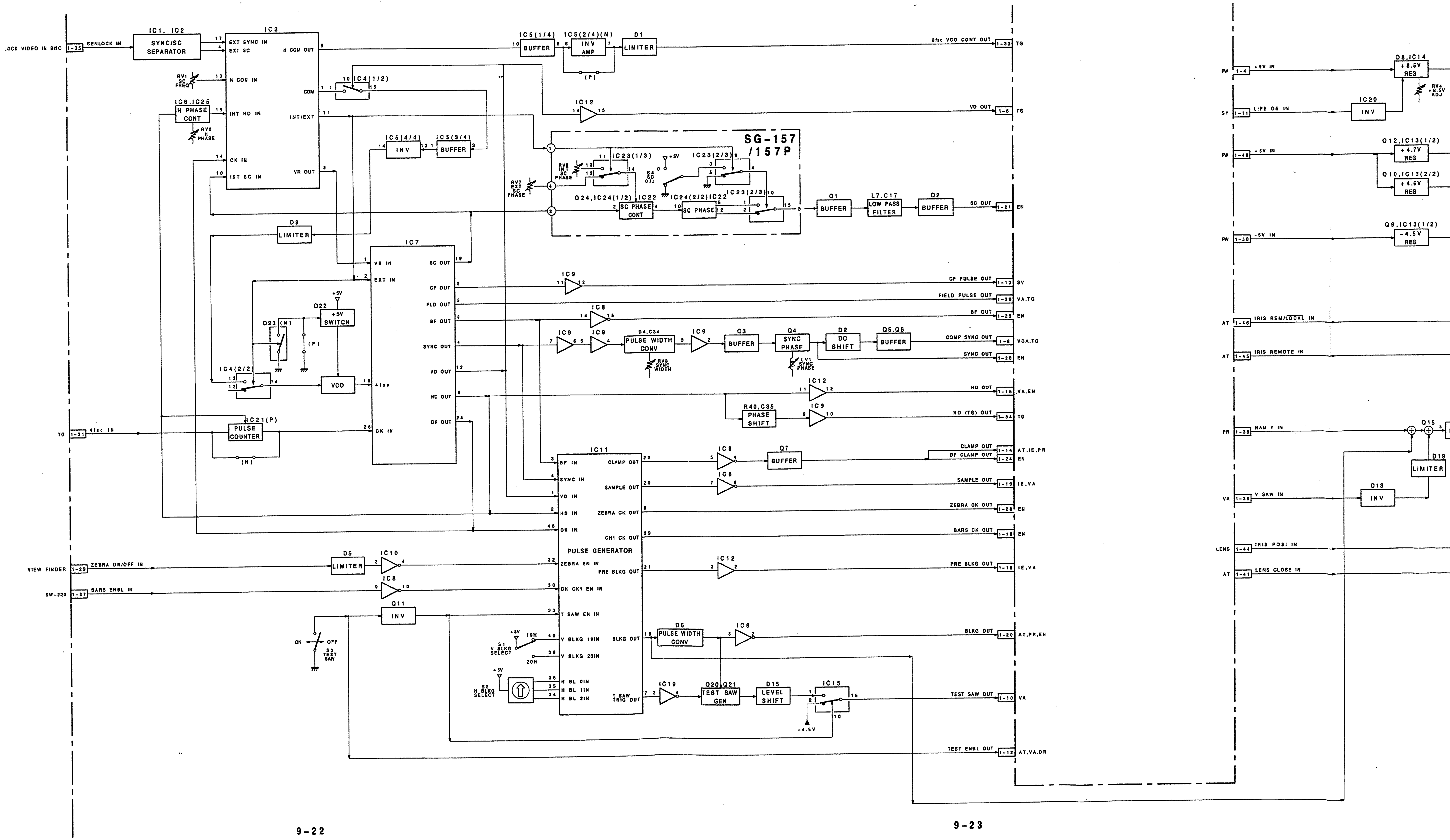

AT 1-43 R VIDEO OUT
AT 1-42 G VIDEO OUT
AT 1-41 B VIDEO OUT
PR 1-32 R PR VIDEO IN
PR 1-34 G PR VIDEO IN
PR 1-36 B PR VIDEO IN
AT 1-46 MONITOR ENBL OUT
SW-220 1-45 BARS ENBL IN
SG 1-14 HD IN
SG 1-16 BARS CK IN
SG 1-20 BLKG IN
SG 1-29 SYNC IN
SG 1-26 BF IN
IC1
IC2
INV 2 IN
H REF IN
COLOR BAR GENERATOR
BAR CK IN
INV 1 IN
R OUT
G OUT
B OUT
Y OUT
SETUP OUT
SETUP OUT
RV1 R BAR LEV
RV2 G BAR LEV
RV3 B BAR LEV
(P)
Q1 BUFFER
Q2 BUFFER
Q3 BUFFER
TP1
TP2
TP3
S3
ENC
G
RB1 Y MATRIX
RV18 G LEV
RV5 WHT LEV (N)
RV4 SETUP LEV (N)
RV6 SYNC LEV
(N)
IC3
INV AMP
BUFFER
SAMPLE & HOLD
DL1 338ns DELAY
POWER SAVE CIRCUIT
Q14,Q15 BUFFER
TP7
RV11 Y LEV
CV1 Y FREQ RESP
IC7 AMP
IC4(1/2) INV AMP
RV19 Y LEV
IC4(2/2) INV AMP
IC5 ZEBRA LEVEL DETECT
RV17 ZEBRA IND LEVEL
Q4,5 ZEBRA SWITCH
9
RB2,IC10(1/2) R-Y MATRIX & AMP
RB3,IC10(2/2) B-Y MATRIX & AMP
Q10 BUFFER
Q18 BUFFER
OFF
ON
S1 R-Y ON/OFF
S2 B-Y ON/OFF
L5,C27 C28,C72(P) LOW PASS FILTER
L6,C39 C40,C73(P) LOW PASS FILTER
POWER SAVE CIRCUIT
Q11 BUFFER
Q19 BUFFER
Q33 BUFFER
RV8 R-Y LEV
RV16 BURST PHASE (P)
Q35 AMP
Q36 AMP
Q12 BUFFER
Q20 BUFFER
Q13 CLAMP
Q21 CLAMP
RV9 R-Y CAL BAL
RV10 B-Y CAL BAL
TP4
TP5
D2 BURST SET
RV13 BURST START
RV14 BURST STOP (N)
RV15 BURST LEV
Q31 BUFFER
Q32 BUFFER
RV20 R-Y LEV
RV21 B-Y LEV

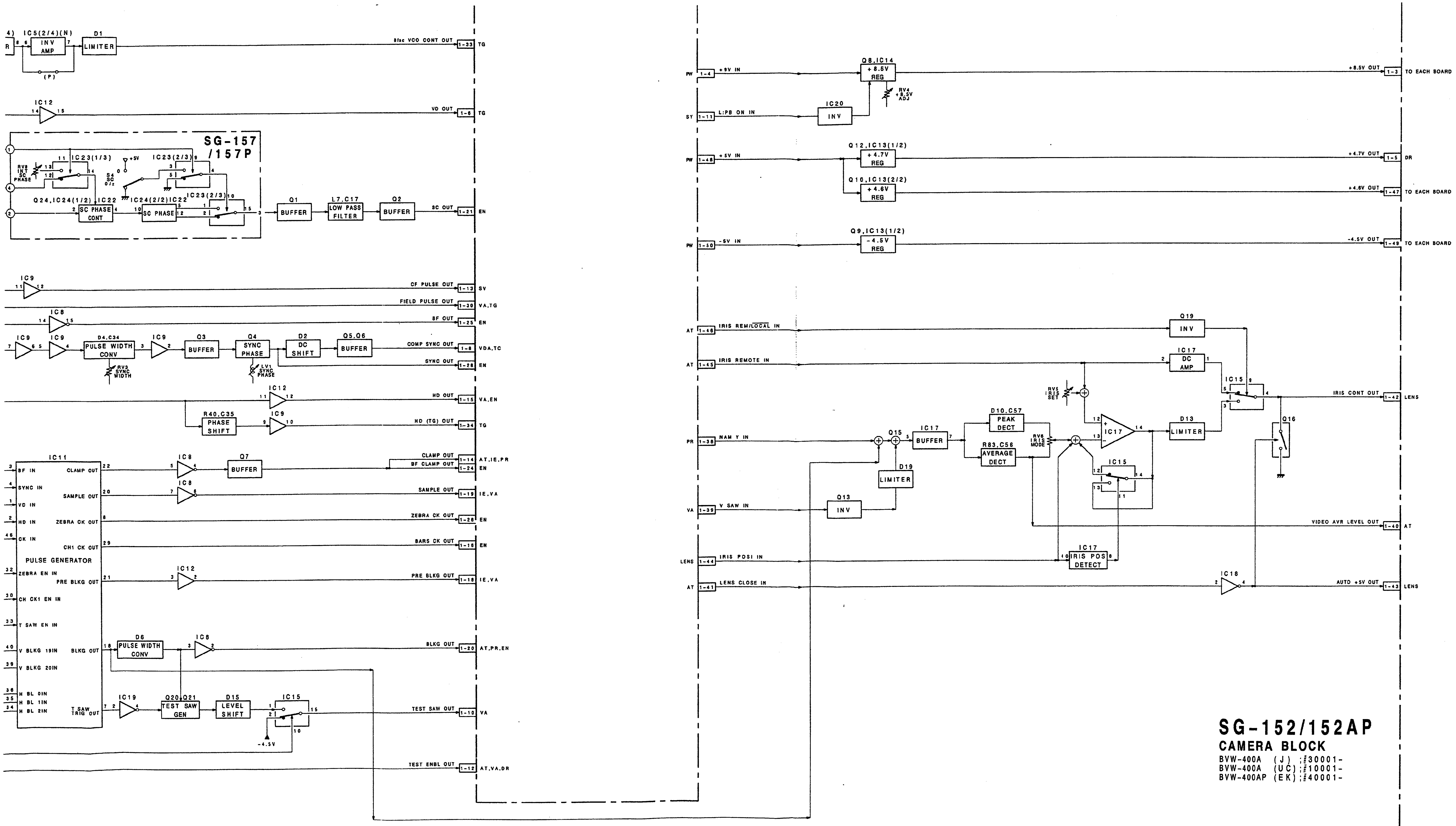

+8.5V
Q26
+4.6V
Q27
-4.5V
Q29
Q28,Q34
DRIVER
Q30
INV
EN SAVE 1 IN
1-40
MB
EN SAVE 2 IN
1-44
VP
POWER SAVE CIRCUIT
IC1
1
2
15
10
3
5
4
9
13
12
14
11
6
Q1
BUFFER
TP1
Q2
BUFFER
TP2
Q3
BUFFER
TP3
S3
ENC
G
RB1
Y MATRIX
2
RV5 WHT LEV (N)
RV4 SETUP LEV (N)
RV18 G LEV
RV6 SYNC LEV
(N)
(N)
IC3
INV AMP
BUFFER
SAMPLE & HOLD
4
9
DL1
338ns DELAY
Q14,Q15
BUFFER
TP7
RV11 Y LEV
CV1 Y FREQ RESP
IC7
AMP
2
RV12 CHROMA LEV
75Ω
75Ω
VBS OUT
1-38
CN014,VIDEO OUT 1 BNC
VBS(ADPT)OUT
1-12
CN001,VIDEO OUT 2 BNC,PB ADAPTOR
IC2
46
INV 2 IN
R OUT
3
G OUT
5
1245
H REF IN
B OUT
1
COLOR BAR GENERATOR
41
BAR CK IN
Y OUT
7
SETUP OUT
34
SETUP OUT
35
42
INV 1 IN
RV1 R BAR LEV
RV2 G BAR LEV
RV3 B BAR LEV
(P)
(P)
(P)
IC4(1/2)
INV AMP
1
3
RV19 Y LEV
Y VIDEO OUT
1-5
AFM
IC4(2/2)
INV AMP
5
7
Y(VF)VIDEO OUT
1-11
FRAME
IC5
ZEBRA LEVEL DETECT
2
6
RV17 ZEBRA IND LEVEL
ZEBRA CK IN
1-27
SG
Q4,5
ZEBRA SWITCH
ZEBRA ON/OFF IN
1-30
VIEWFINDER
5
9
4
RB2,IC10(1/2)
R-Y MATRIX & AMP
Q10
BUFFER
OFF
ON
S1 R-Y ON/OFF
L5,C27 C28,C72(P)
LOW PASS FILTER
RB3,IC10(2/2)
B-Y MATRIX & AMP
Q18
BUFFER
OFF
ON
S2 B-Y ON/OFF
L6,C39 C40,C73(P)
LOW PASS FILTER
Q11
BUFFER
RV8 R-Y LEV
Q35
AMP
Q12
BUFFER
Q13
CLAMP
TP4
RV16 BURST PHASE (P)
RV9 R-Y CAL BAL
Q19
BUFFER
Q36
AMP
Q20
BUFFER
Q21
CLAMP
TP5
RV10 B-Y CAL BAL
Q33
BUFFER
IC8
1
R-Y
ENCODER
CHROMA
8
4
B-Y
L ALT SC
SC
14
15
3
FL3
BAND PASS FILTER
Q25
BUFFER
TP6
Q24
BUFFER
SC IN
1-22
SG
Q22
BUFFER
C50,C51
90° SHIFT
Q23
BUFFER
LV2 SC QUAD
L ALT IN (P)
1-24
SG
7
9
6
D2
BURST SET
9
9
10
RV13 BURST START
RV14 BURST STOP (N)
RV15 BURST LEV
BF CLAMP IN
1-25
SG
Q31
BUFFER
RV20 R-Y LEV
R-Y VIDEO OUT
1-7
VDA
Q32
BUFFER
RV21 B-Y LEV
B-Y VIDEO OUT
1-9
VDA

EN-79/79U/79P
CAMERA BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC);#10001-
BVW-400AP (EK);#40001-

SYNC GEN


LOCK VIDEO IN BNC
1-35
GENLOCK IN
IC1, IC2
SYNC/SC SEPARATOR
IC3
EXT SYNC IN
EXT SC
H COM OUT
RV1 SC FREQ
H CON IN
COM
IC6,IC25
H PHASE CONT
RV2 H PHASE
INT HD IN
INT/EXT
CK IN
INT SC IN
VR OUT
IC4(1/2)
IC5(1/4)
BUFFER
IC5(2/4)(N)
INV AMP
(P)
D1
LIMITER
8fsc VCO CONT OUT
1-33
TG
IC12
VD OUT
1-6
IC5(4/4)
INV
IC5(3/4)
BUFFER
SG-157 /157P
RV8 INT SC PHASE
IC23(1/3)
+5V
IC23(2/3)
S4 SC 0/π
RV7 EXT SC PHASE
Q24,IC24(1/2)
IC22
SC PHASE CONT
IC24(2/2)IC22
SC PHASE
IC23(2/3)
Q1
BUFFER
L7,C17
LOW PASS FILTER
Q2
BUFFER
SC OUT
1-21
EN
D3
LIMITER
IC7
VR IN
EXT IN
SC OUT
CF OUT
FLD OUT
BF OUT
SYNC OUT
VD OUT
HD OUT
CK OUT
4fsc
CK IN
+5V
Q22
+5V SWITCH
Q23 (N)
(P)
IC4(2/2)
VCO
IC9
CF PULSE OUT
1-13
SV
FIELD PULSE OUT
1-30
VA,TG
IC8
BF OUT
1-25
EN
IC9
IC9
D4,C34
PULSE WIDTH CONV
RV3 SYNC WIDTH
IC9
Q3
BUFFER
Q4
SYNC PHASE
LV1 SYNC PHASE
D2
DC SHIFT
Q5,Q6
BUFFER
COMP SYNC OUT
1-8
VDA,TC
SYNC OUT
1-28
EN
IC12
HD OUT
1-15
VA,EN
R40,C35
PHASE SHIFT
IC9
HD (TG) OUT
1-34
TG
TG
1-31
4fsc IN
IC21(P)
PULSE COUNTER
(N)
IC11
BF IN
SYNC IN
VD IN
HD IN
CK IN
CLAMP OUT
SAMPLE OUT
ZEBRA CK OUT
CH1 CK OUT
PULSE GENERATOR
ZEBRA EN IN
PRE BLKG OUT
CH CK1 EN IN
T SAW EN IN
V BLKG 19IN
V BLKG 20IN
BLKG OUT
H BL 0IN
H BL 1IN
H BL 2IN
T SAW TRIG OUT
IC8
Q7
BUFFER
CLAMP OUT
1-14
AT,IE,PR
BF CLAMP OUT
1-24
EN
IC8
SAMPLE OUT
1-19
IE,VA
ZEBRA CK OUT
1-26
EN
BARS CK OUT
1-16
EN
VIEW FINDER
1-29
ZEBRA ON/OFF IN
D5
LIMITER
IC10
IC12
PRE BLKG OUT
1-18
IE,VA
SW-220
1-37
BARS ENBL IN
IC8
Q11
INV
ON
OFF
S3 TEST SAW
+5V
19H
S1 V BLKG SELECT
20H
S2 H BLKG SELECT
D6
PULSE WIDTH CONV
IC8
BLKG OUT
1-20
AT,PR,EN
IC19
Q20,Q21
TEST SAW GEN
D15
LEVEL SHIFT
IC15
-4.5V
TEST SAW OUT
1-10
VA
TEST ENBL OUT
1-12
AT,VA,DR
PW
1-4
+9V IN
Q8,IC14
+8.5V REG
RV4 +8.5V ADJ
SY
1-11
L:PB ON IN
IC20
INV
Q12,IC13(1/2)
PW
1-48
+5V IN
+4.7V REG
Q10,IC13(2/2)
+4.6V REG
Q9,IC13(1/2)
PW
1-50
-5V IN
-4.5V REG
AT
1-46
IRIS REM/LOCAL IN
AT
1-45
IRIS REMOTE IN
PR
1-38
NAM Y IN
Q15
D19
LIMITER
Q13
VA
1-39
V SAW IN
INV
LENS
1-44
IRIS POSI IN
AT
1-41
LENS CLOSE IN

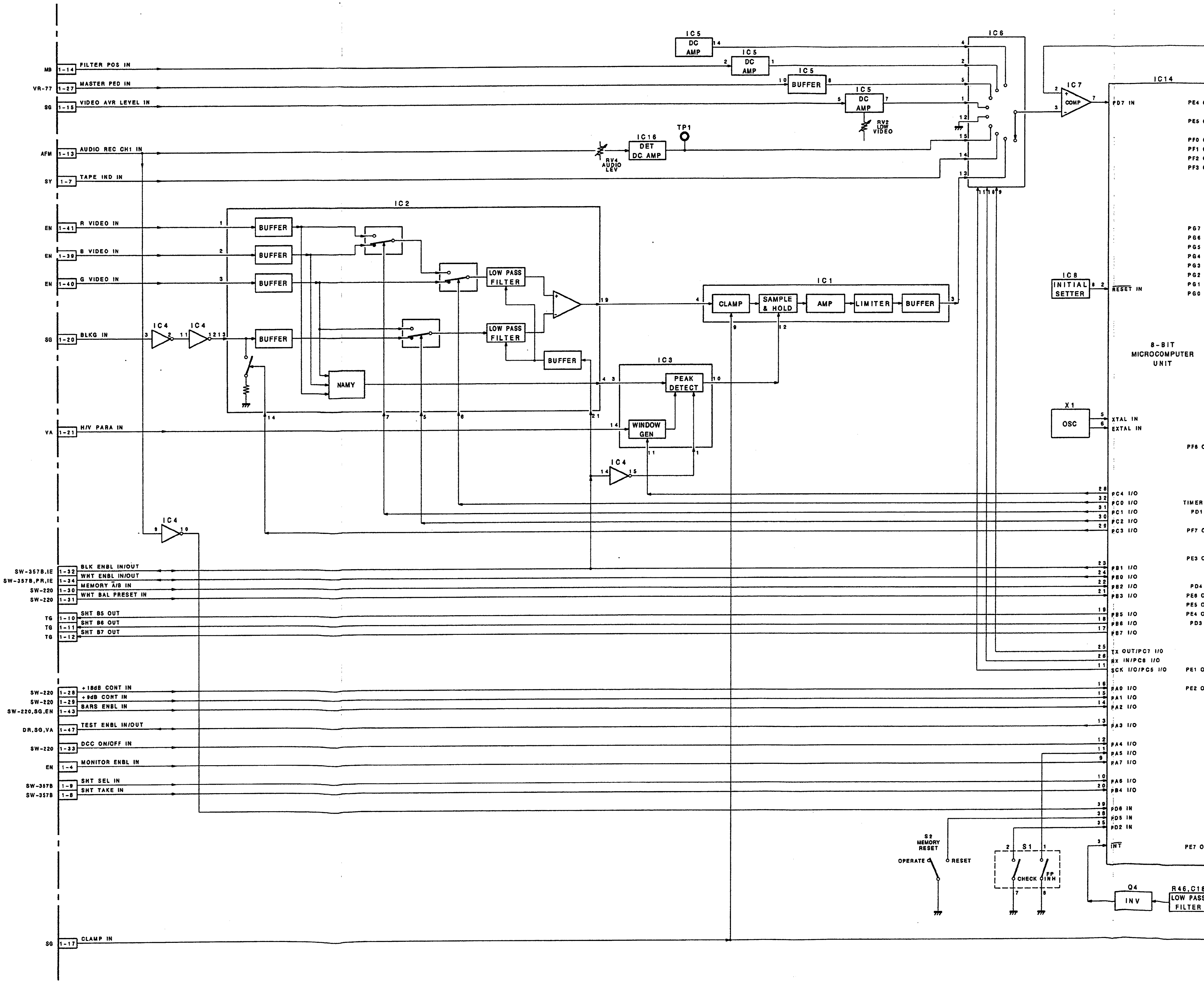

4)
R
IC5(2/4)(N)
INV AMP
(P)
D1
LIMITER
8fsc VCO CONT OUT
1-33
TG
IC12
VD OUT
1-6
TG
SG-157
/157P
RV8 INT SC PHASE
IC23(1/3)
+5V
S4 SC 0/±
IC23(2/3)
Q24,IC24(1/2) IC22
SC PHASE CONT
IC24(2/2)IC22
SC PHASE
IC23(2/3)
Q1
BUFFER
L7,C17
LOW PASS FILTER
Q2
BUFFER
SC OUT
1-21
EN
IC9
CF PULSE OUT
1-13
SV
FIELD PULSE OUT
1-30
VA,TG
IC8
BF OUT
1-25
EN
IC9
IC9
D4,C34
PULSE WIDTH CONV
RV3 SYNC WIDTH
IC9
Q3
BUFFER
Q4
SYNC PHASE
LV1 SYNC PHASE
D2
DC SHIFT
Q5,Q6
BUFFER
COMP SYNC OUT
1-8
VDA,TC
SYNC OUT
1-28
EN
IC12
HD OUT
1-15
VA,EN
R40,C35
PHASE SHIFT
IC9
HD (TG) OUT
1-34
TG
IC11
BF IN
CLAMP OUT
SYNC IN
SAMPLE OUT
VD IN
HD IN
ZEBRA CK OUT
CK IN
CH1 CK OUT
PULSE GENERATOR
ZEBRA EN IN
PRE BLKG OUT
CH CK1 EN IN
T SAW EN IN
V BLKG 19IN
BLKG OUT
V BLKG 20IN
H BL 0IN
H BL 1IN
H BL 2IN
T SAW TRIG OUT
IC8
Q7
BUFFER
CLAMP OUT
1-14
AT,IE,PR
BF CLAMP OUT
1-24
EN
IC8
SAMPLE OUT
1-19
IE,VA
ZEBRA CK OUT
1-28
EN
BARS CK OUT
1-16
EN
IC12
PRE BLKG OUT
1-18
IE,VA
D6
PULSE WIDTH CONV
IC8
BLKG OUT
1-20
AT,PR,EN
IC19
Q20,Q21
TEST SAW GEN
D15
LEVEL SHIFT
IC15
-4.5V
TEST SAW OUT
1-10
VA
TEST ENBL OUT
1-12
AT,VA,DR
PW
1-4
+9V IN
Q8,IC14
+8.5V REG
RV4 +8.5V ADJ
+8.5V OUT
1-3
TO EACH BOARD
SY
1-11
L:PB ON IN
IC20
INV
PW
1-48
+5V IN
Q12,IC13(1/2)
+4.7V REG
+4.7V OUT
1-5
DR
Q10,IC13(2/2)
+4.6V REG
+4.6V OUT
1-47
TO EACH BOARD
PW
1-50
-5V IN
Q9,IC13(1/2)
-4.5V REG
-4.5V OUT
1-49
TO EACH BOARD
AT
1-46
IRIS REM/LOCAL IN
Q19
INV
AT
1-45
IRIS REMOTE IN
IC17
DC AMP
IC15
RV5 IRIS SET
IRIS CONT OUT
1-42
LENS
Q16
PR
1-38
NAM Y IN
Q15
IC17
BUFFER
D10,C57
PEAK DECT
R83,C56
AVERAGE DECT
RV6 IRIS MODE
IC17
D13
LIMITER
D19
LIMITER
IC15
VA
1-39
V SAW IN
Q13
INV
VIDEO AVR LEVEL OUT
1-40
AT
LENS
1-44
IRIS POSI IN
IC17
IRIS POS DETECT
AT
1-41
LENS CLOSE IN
IC18
AUTO +5V OUT
1-43
LENS

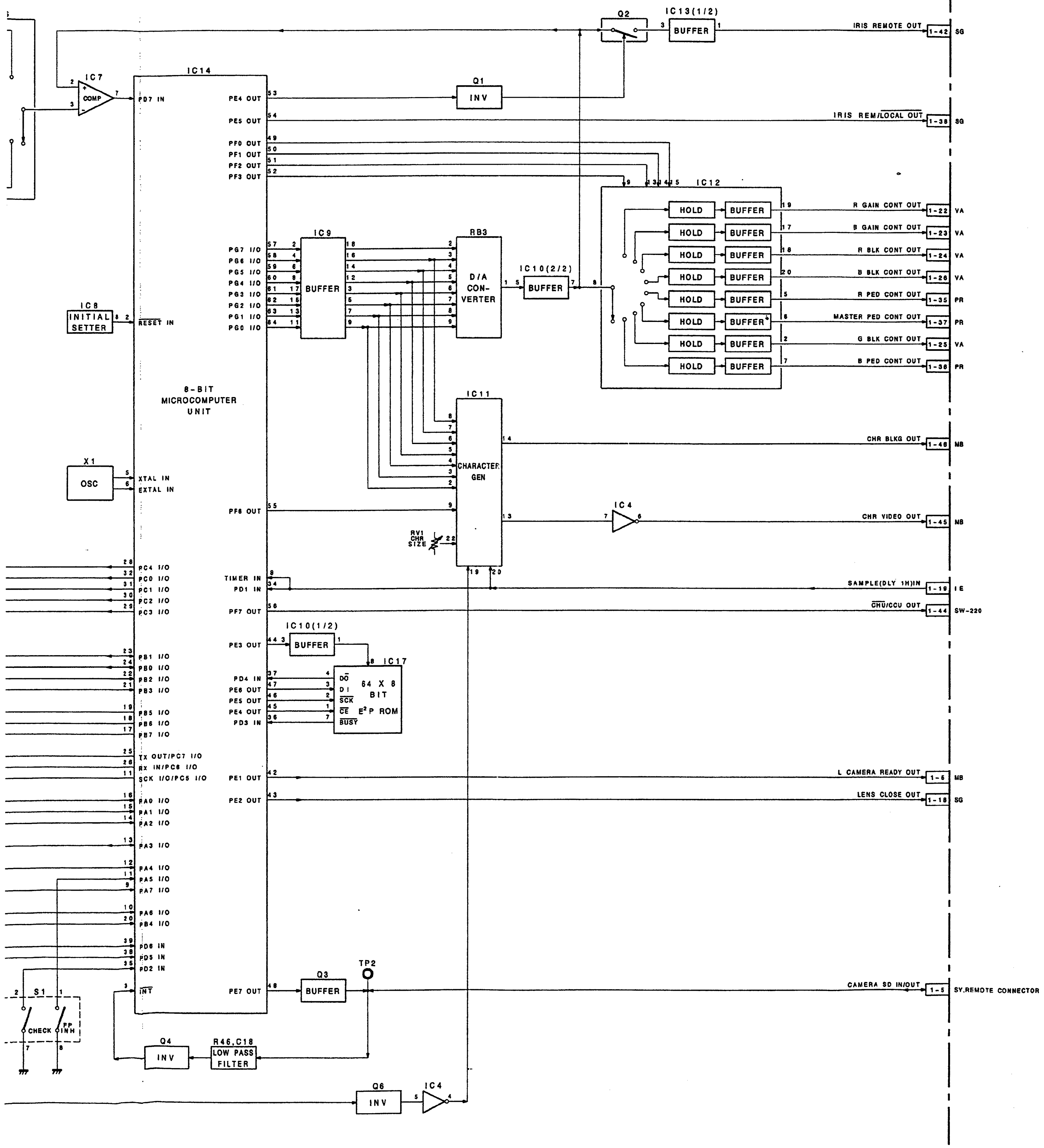
SG-152/152AP
CAMERA BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

AT-49B AT-49B

AUTO W/B,CHARA GEN,SYS-CON

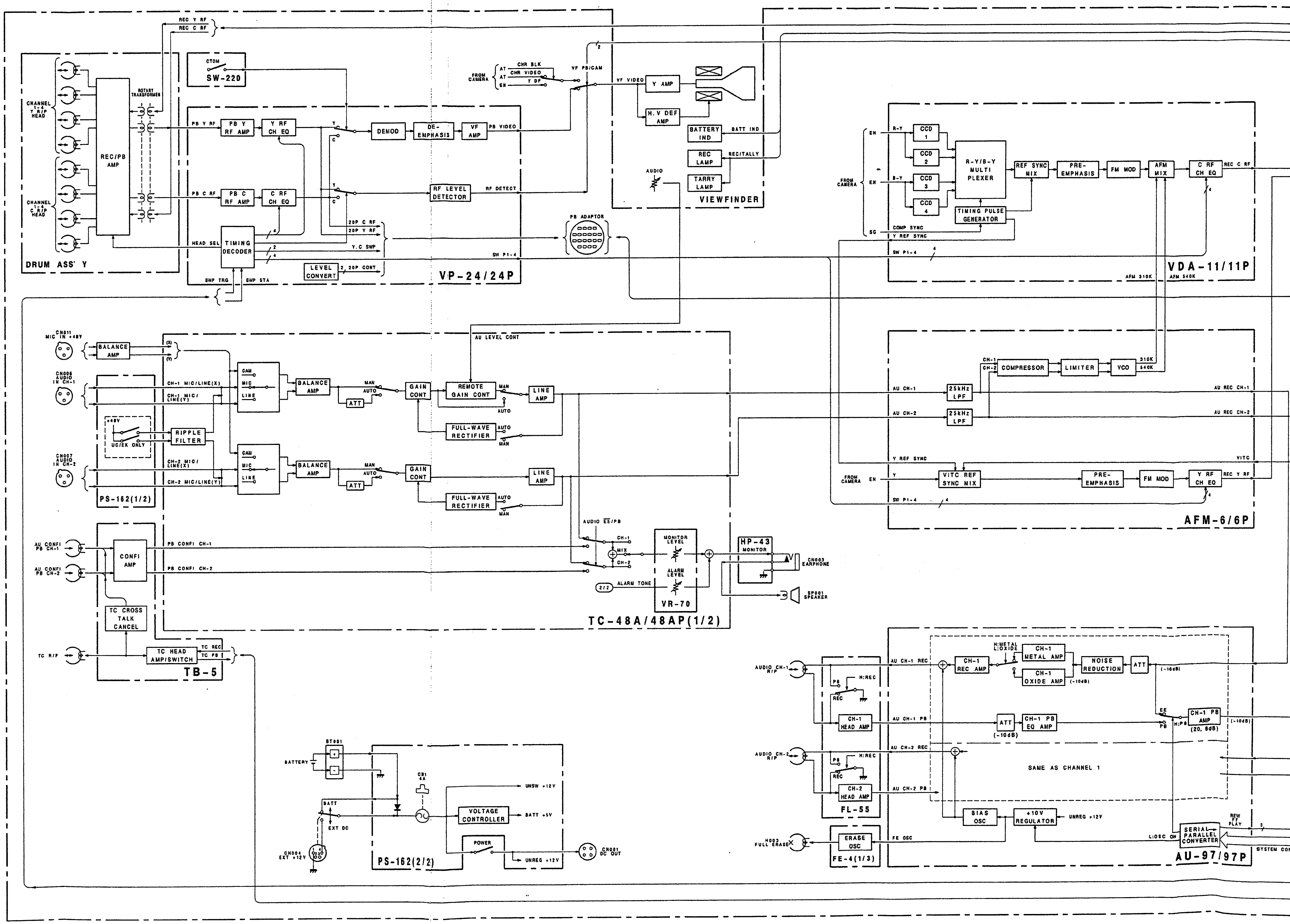

MB 1-14 FILTER POS IN
VR-77 1-27 MASTER PED IN
SG 1-15 VIDEO AVR LEVEL IN
AFM 1-13 AUDIO REC CH1 IN
SY 1-7 TAPE IND IN
EN 1-41 R VIDEO IN
EN 1-39 B VIDEO IN
EN 1-40 G VIDEO IN
SG 1-20 BLKG IN
VA 1-21 H/V PARA IN
SW-357B.IE 1-32 BLK ENBL IN/OUT
SW-357B,PR,IE 1-34 WHT ENBL IN/OUT
SW-220 1-30 MEMORY A/B IN
SW-220 1-31 WHT BAL PRESET IN
TG 1-10 SHT B5 OUT
TG 1-11 SHT B6 OUT
TG 1-12 SHT B7 OUT
SW-220 1-28 +18dB CONT IN
SW-220 1-29 +9dB CONT IN
SW-220,SG,EN 1-43 BARS ENBL IN
DR,SG,VA 1-47 TEST ENBL IN/OUT
SW-220 1-33 DCC ON/OFF IN
EN 1-4 MONITOR ENBL IN
SW-357B 1-9 SHT SEL IN
SW-357B 1-8 SHT TAKE IN
SG 1-17 CLAMP IN
IC2
BUFFER
BUFFER
BUFFER
BUFFER
LOW PASS FILTER
LOW PASS FILTER
BUFFER
NAMY
IC4
IC4
IC4
IC4
IC3
PEAK DETECT
WINDOW GEN
IC1
CLAMP
SAMPLE & HOLD
AMP
LIMITER
BUFFER
IC5 DC AMP
IC5 DC AMP
IC5 BUFFER
IC5 DC AMP
RV2 LOW VIDEO
IC16 DET DC AMP
RV4 AUDIO LEV
TP1
IC6
IC7 COMP
IC14
IC8 INITIAL SETTER
X1 OSC
8-BIT MICROCOMPUTER UNIT
PD7 IN
RESET IN
XTAL IN
EXTAL IN
PC4 I/O
PC0 I/O
PC1 I/O
PC2 I/O
PC3 I/O
PB1 I/O
PB0 I/O
PB2 I/O
PB3 I/O
PB5 I/O
PB6 I/O
PB7 I/O
TX OUT/PC7 I/O
RX IN/PC6 I/O
SCK I/O/PC5 I/O
PA0 I/O
PA1 I/O
PA2 I/O
PA3 I/O
PA4 I/O
PA5 I/O
PA7 I/O
PA6 I/O
PB4 I/O
PD6 IN
PD5 IN
PD2 IN
INT
PE4
PE5
PF0
PF1
PF2
PF3
PG7
PG6
PG5
PG4
PG3
PG2
PG1
PG0
PF6
TIMER
PD1
PF7
PE3
PD4
PE6
PE5
PE4
PD3
PE1
PE2
PE7
S2 MEMORY RESET
OPERATE
RESET
S1
CHECK
FP INH
Q4 INV
R46,C18
LOW PASS FILTER

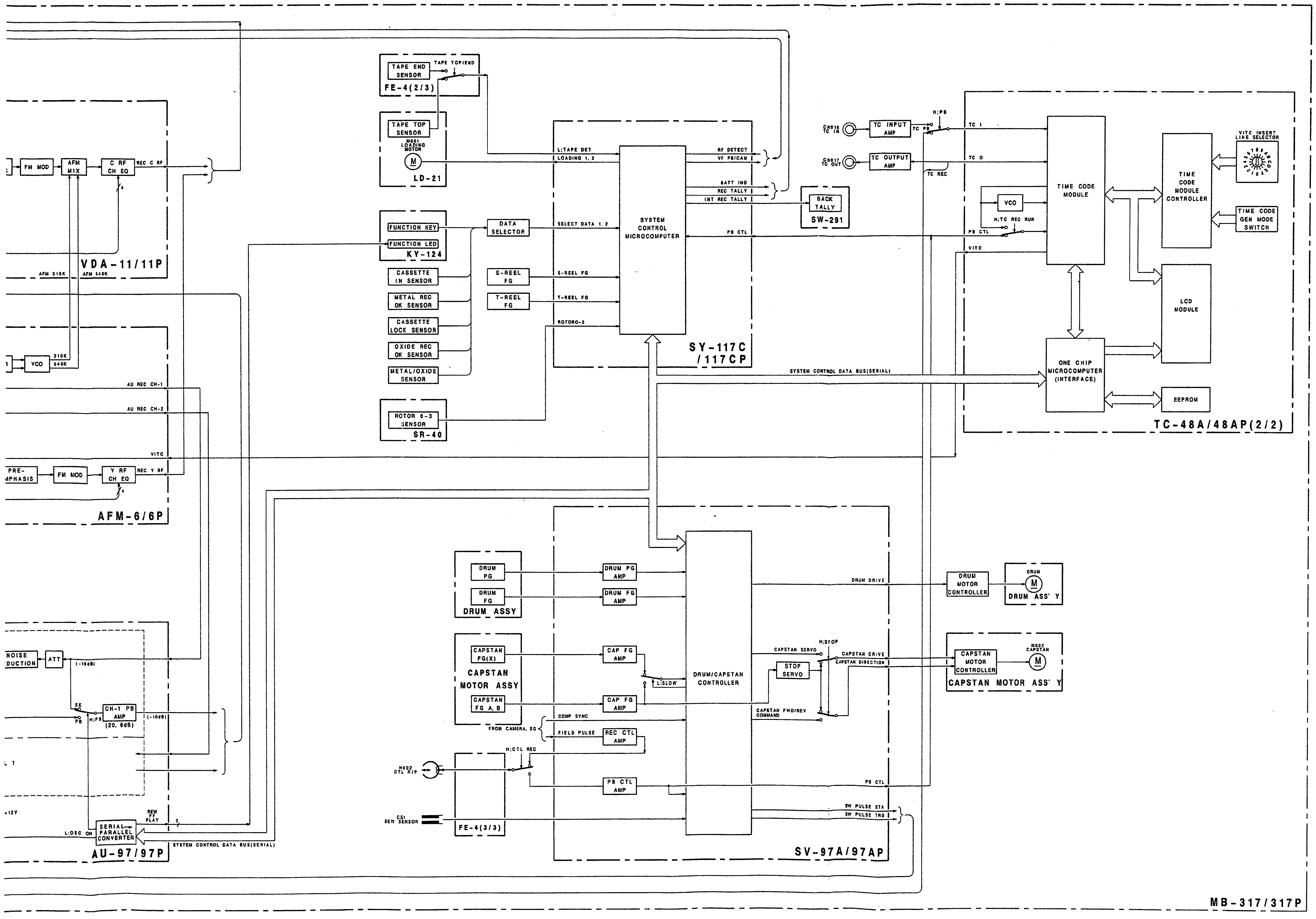

IC7
COMP
IC14
PD7 IN
PE4 OUT
PE5 OUT
PF0 OUT
PF1 OUT
PF2 OUT
PF3 OUT
PG7 I/O
PG6 I/O
PG5 I/O
PG4 I/O
PG3 I/O
PG2 I/O
PG1 I/O
PG0 I/O
IC8
INITIAL SETTER
RESET IN
8-BIT MICROCOMPUTER UNIT
X1
OSC
XTAL IN
EXTAL IN
PF6 OUT
PC4 I/O
PC0 I/O
PC1 I/O
PC2 I/O
PC3 I/O
TIMER IN
PD1 IN
PF7 OUT
PE3 OUT
PB1 I/O
PB0 I/O
PB2 I/O
PB3 I/O
PD4 IN
PE6 OUT
PE5 OUT
PE4 OUT
PD3 IN
PB5 I/O
PB6 I/O
PB7 I/O
TX OUT/PC7 I/O
RX IN/PC6 I/O
SCK I/O/PC5 I/O
PE1 OUT
PE2 OUT
PA0 I/O
PA1 I/O
PA2 I/O
PA3 I/O
PA4 I/O
PA5 I/O
PA7 I/O
PA6 I/O
PB4 I/O
PD6 IN
PD5 IN
PD2 IN
INT
PE7 OUT
S1
CHECK
FP INH
Q4
INV
R46,C18
LOW PASS FILTER
Q6
INV
IC4
Q3
BUFFER
TP2
Q1
INV
Q2
IC13(1/2)
BUFFER
IC9
BUFFER
RB3
D/A CON-VERTER
IC10(2/2)
BUFFER
IC12
HOLD
BUFFER
IC11
CHARACTER GEN
RV1 CHR SIZE
IC4
IC10(1/2)
BUFFER
IC17
DO
DI
SCK
CE
BUSY
64 X 8 BIT
E²P ROM
IRIS REMOTE OUT 1-42 SG
IRIS REM/LOCAL OUT 1-38 SG
R GAIN CONT OUT 1-22 VA
B GAIN CONT OUT 1-23 VA
R BLK CONT OUT 1-24 VA
B BLK CONT OUT 1-26 VA
R PED CONT OUT 1-35 PR
MASTER PED CONT OUT 1-37 PR
G BLK CONT OUT 1-25 VA
B PED CONT OUT 1-36 PR
CHR BLKG OUT 1-46 MB
CHR VIDEO OUT 1-45 MB
SAMPLE(DLY 1H)IN 1-19 IE
CHU/CCU OUT 1-44 SW-220
L CAMERA READY OUT 1-6 MB
LENS CLOSE OUT 1-18 SG
CAMERA SD IN/OUT 1-5 SY,REMOTE CONNECTOR

AT-49B
CAMERA BLOCK
BVW-400A (J) ;#30001-
BVW-400A (UC);#10001-
BVW-400AP (EK);#40001-

OVERALL BLOCK DIAGRAM(VTR)

S/N;40001 through 41567


REC Y RF
REC C RF
CHANNEL 1-4 Y R/P HEAD
CHANNEL 1-4 C R/P HEAD
REC/PB AMP
ROTARY TRANSFORMER
DRUM ASS'Y
CTDM
SW-220
PB Y RF
PB Y RF AMP
Y RF CH EQ
PB C RF
PB C RF AMP
C RF CH EQ
DEMOD
DE-EMPHASIS
VF AMP
PB VIDEO
RF LEVEL DETECTOR
RF DETECT
HEAD SEL
TIMING DECODER
20P C RF
20P Y RF
Y.C SWP
SW P1-4
LEVEL CONVERT
20P CONT
SWP TRG
SWP STA
VP-24/24P
FROM CAMERA
CHR BLK
CHR VIDEO
Y DF
VF PB/CAM
VF VIDEO
Y AMP
H.V DEF AMP
BATTERY IND
BATT IND
REC LAMP
REC/TALLY
TARRY LAMP
AUDIO
VIEWFINDER
PB ADAPTOR
CN011 MIC IN +48V
BALANCE AMP
CN006 AUDIO IN CH-1
CN007 AUDIO IN CH-2
CH-1 MIC/LINE(X)
CH-1 MIC/LINE(Y)
CH-2 MIC/LINE(X)
CH-2 MIC/LINE(Y)
+48V
UC/EK ONLY
RIPPLE FILTER
PS-162(1/2)
CAM
MIC
LINE
BALANCE AMP
ATT
MAN
AUTO
GAIN CONT
AU LEVEL CONT
REMOTE GAIN CONT
LINE AMP
FULL-WAVE RECTIFIER
AUDIO EE/PB
CH-1
MIX
CH-2
MONITOR LEVEL
ALARM LEVEL
ALARM TONE
(2/2)
VR-70
HP-43
MONITOR
CN003 EARPHONE
SP001 SPEAKER
TC-48A/48AP(1/2)
AU CONFI PB CH-1
AU CONFI PB CH-2
CONFI AMP
PB CONFI CH-1
PB CONFI CH-2
TC CROSS TALK CANCEL
TC R/P
TC HEAD AMP/SWITCH
TC REC
TC PB
TB-5
BT001
BATTERY
BATT
EXT DC
CN004 EXT +12V
CB1 4A
UNSW +12V
VOLTAGE CONTROLLER
BATT +5V
POWER
UNREG +12V
CN001 DC OUT
PS-162(2/2)
EN
SG
R-Y
B-Y
CCD 1
CCD 2
CCD 3
CCD 4
R-Y/B-Y MULTI PLEXER
TIMING PULSE GENERATOR
REF SYNC MIX
PRE-EMPHASIS
FM MOD
AFM MIX
C RF CH EQ
REC C RF
COMP SYNC
Y REF SYNC
SW P1-4
AFM 310K
AFM 540K
VDA-11/11P
CH-1
CH-2
COMPRESSOR
LIMITER
VCO
310K
540K
AU CH-1
AU CH-2
25kHz LPF
AU REC CH-1
AU REC CH-2
VITC
VITC REF SYNC MIX
Y RF CH EQ
REC Y RF
AFM-6/6P
AUDIO CH-1 R/P
AUDIO CH-2 R/P
PB
REC
H:REC
CH-1 HEAD AMP
CH-2 HEAD AMP
FL-55
H003 FULL ERASE
ERASE OSC
FE-4(1/3)
AU CH-1 REC
AU CH-1 PB
AU CH-2 REC
AU CH-2 PB
FE OSC
H:METAL
L:OXIDE
CH-1 REC AMP
CH-1 METAL AMP
CH-1 OXIDE AMP
(-10dB)
NOISE REDUCTION
ATT
(-18dB)
CH-1 PB EQ AMP
EE
H:PB
CH-1 PB AMP
(20, 6dB)
SAME AS CHANNEL 1
BIAS OSC
+10V REGULATOR
UNREG +12V
L:OSC ON
SERIAL-PARALLEL CONVERTER
REW
FF
PLAY
SYSTEM CON
AU-97/97P


TAPE END SENSOR
TAPE TOP/END
FE-4(2/3)
TAPE TOP SENSOR
M001 LOADING MOTOR
M
LD-21
FUNCTION KEY
FUNCTION LED
KY-124
DATA SELECTOR
CASSETTE IN SENSOR
METAL REC OK SENSOR
CASSETTE LOCK SENSOR
OXIDE REC OK SENSOR
METAL/OXIDE SENSOR
S-REEL FG
T-REEL FG
ROTOR 0-3 SENSOR
SR-40
FM MOD
AFM MIX
C RF CH EQ
REC C RF
4
VDA-11/11P
AFM 310K
AFM 540K
VCO
310K
540K
AU REC CH-1
AU REC CH-2
VITC
PRE-EMPHASIS
FM MOD
Y RF CH EQ
REC Y RF
AFM-6/6P
L;TAPE DET
LOADING 1, 2
SELECT DATA 1, 2
S-REEL FG
T-REEL FG
ROTORO-3
SYSTEM CONTROL MICROCOMPUTER
RF DETECT
VF PB/CAM
BATT IND
REC TALLY
INT REC TALLY
PB CTL
SY-117C /117CP
BACK TALLY
SW-291
CN016 TC IN
CN017 TC OUT
TC INPUT AMP
TC OUTPUT AMP
TC PB
H;PB
TC REC
TC I
TC O
VCO
H;TC REC RUN
PB CTL
VITC
TIME CODE MODULE
TIME CODE MODULE CONTROLLER
VITC INSERT LINE SELECTOR
TIME CODE GEN MODE SWITCH
LCD MODULE
ONE CHIP MICROCOMPUTER (INTERFACE)
EEPROM
TC-48A/48AP(2/2)
SYSTEM CONTROL DATA BUS(SERIAL)
NOISE REDUCTION
ATT
(-16dB)
EE
PB
H;PB
CH-1 PB AMP
(20, 8dB)
(-10dB)
L 1
+12V
REW
FF
PLAY
3
L:OSC ON
SERIAL→PARALLEL CONVERTER
AU-97/97P
SYSTEM CONTROL DATA BUS(SERIAL)
DRUM PG
DRUM FG
DRUM ASSY
CAPSTAN FG(X)
CAPSTAN MOTOR ASSY
CAPSTAN FG A, B
FROM CAMERA, SG
COMP SYNC
FIELD PULSE
H002 CTL R/P
H;CTL REC
CS1 DEW SENSOR
FE-4(3/3)
DRUM PG AMP
DRUM FG AMP
CAP FG AMP
L:SLOW
CAP FG AMP
REC CTL AMP
PB CTL AMP
DRUM/CAPSTAN CONTROLLER
DRUM DRIVE
CAPSTAN SERVO
H;STOP
STOP SERVO
CAPSTAN DRIVE
CAPSTAN DIRECTION
CAPSTAN FWD/REV COMMAND
PB CTL
SW PULSE STA
SW PULSE TRG
SV-97A/97AP
DRUM MOTOR CONTROLLER
DRUM
M
DRUM ASS' Y
CAPSTAN MOTOR CONTROLLER
M002 CAPSTAN
M
CAPSTAN MOTOR ASS' Y
MB-317/317P

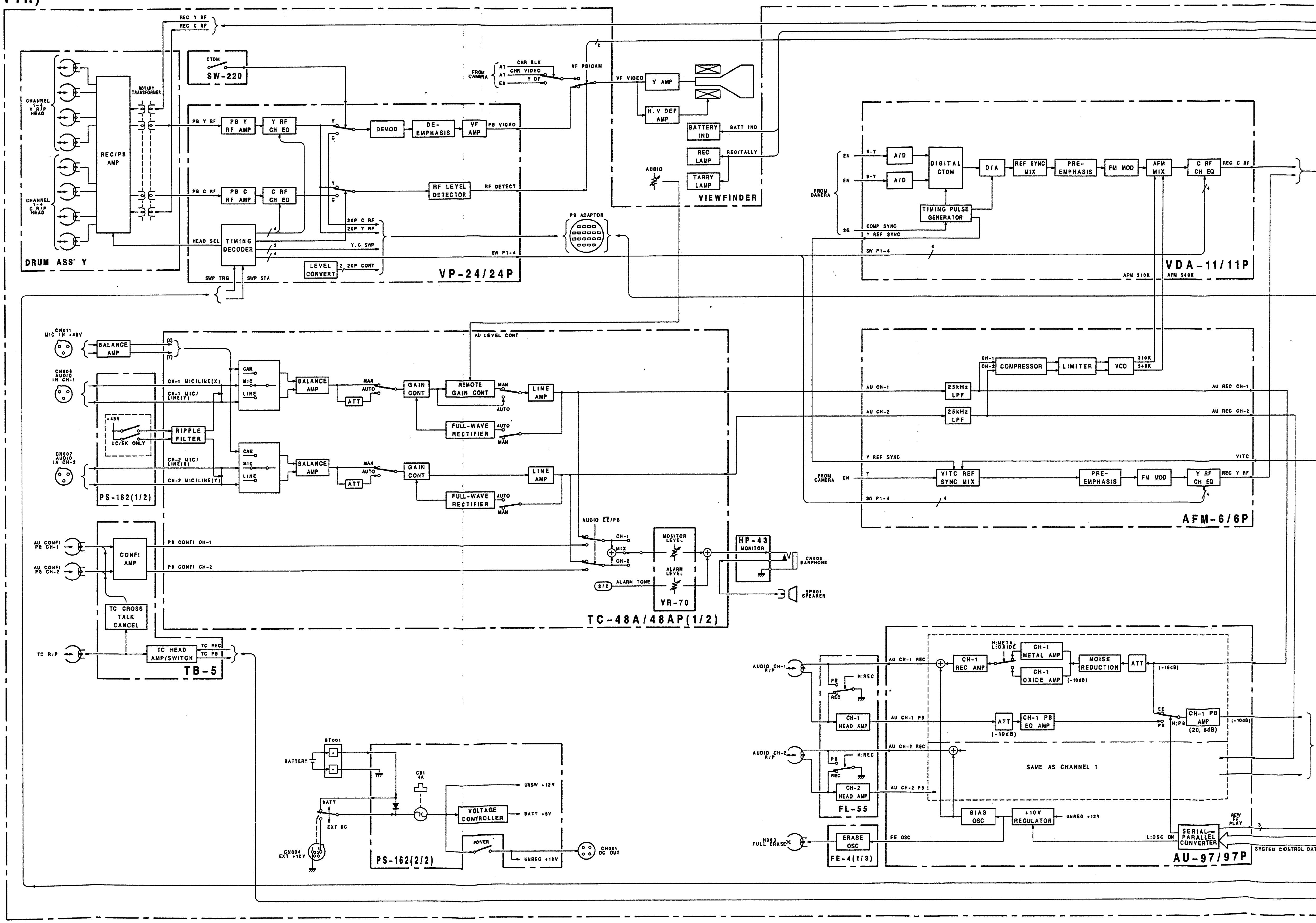
OVERALL

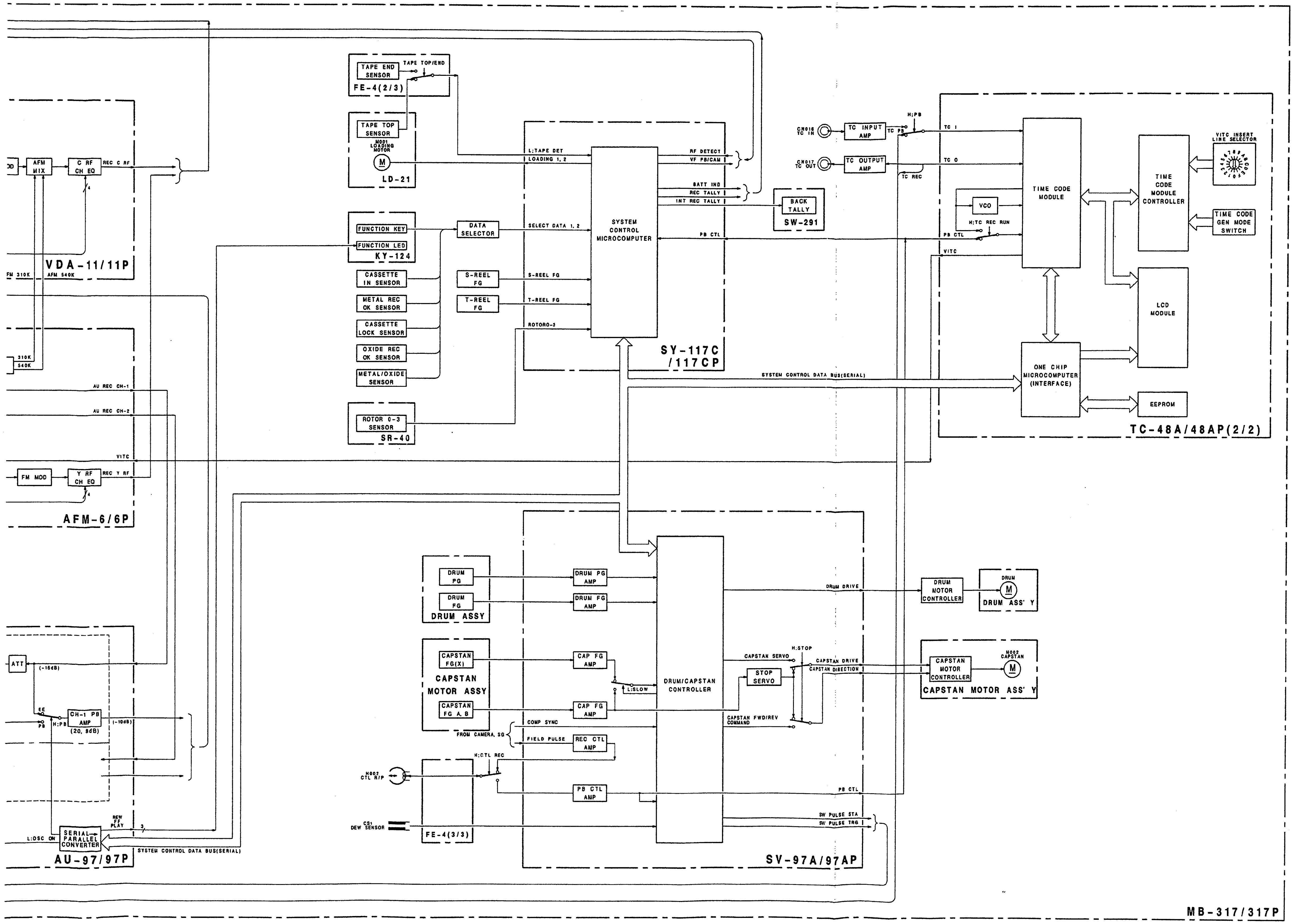
VTR BLOCK

BVW-400A (J) ;#30001-30935
BVW-400A (UC) ;#10001-11053
BVW-400AP (EK) ;#40001-41567

OVERALL BLOCK DIAGRAM(VTR)

S/N;41568 and higher


REC Y RF
REC C RF
CHANNEL 1-4 Y R/P HEAD
CHANNEL 1-4 C R/P HEAD
REC/PB AMP
ROTARY TRANSFORMER
DRUM ASS' Y
CTDM
SW-220
PB Y RF
PB Y RF AMP
Y RF CH EQ
PB C RF
PB C RF AMP
C RF CH EQ
DEMOD
DE-EMPHASIS
VF AMP
PB VIDEO
RF LEVEL DETECTOR
RF DETECT
HEAD SEL
TIMING DECODER
20P C RF
20P Y RF
Y.C SWP
SW P1-4
LEVEL CONVERT
20P CONT
SWP TRG
SWP STA
VP-24/24P
FROM CAMERA
CHR BLK
CHR VIDEO
Y DF
VF PB/CAM
VF VIDEO
Y AMP
H.V DEF AMP
BATTERY IND
BATT IND
REC LAMP
REC/TALLY
TARRY LAMP
AUDIO
VIEWFINDER
PB ADAPTOR
R-Y
B-Y
A/D
DIGITAL CTDM
D/A
REF SYNC MIX
PRE-EMPHASIS
FM MOD
AFM MIX
C RF CH EQ
REC C RF
TIMING PULSE GENERATOR
SG
COMP SYNC
Y REF SYNC
SW P1-4
AFM 310K
AFM 540K
VDA-11/11P
CN811 MIC IN +48V
BALANCE AMP
CN806 AUDIO IN CH-1
CN807 AUDIO IN CH-2
CH-1 MIC/LINE(X)
CH-1 MIC/LINE(Y)
CH-2 MIC/LINE(X)
CH-2 MIC/LINE(Y)
+48V
UC/EK ONLY
RIPPLE FILTER
PS-162(1/2)
CAM
MIC
LINE
MAN
AUTO
ATT
GAIN CONT
AU LEVEL CONT
REMOTE GAIN CONT
LINE AMP
FULL-WAVE RECTIFIER
AU CH-1
AU CH-2
25kHz LPF
CH-1
CH-2
COMPRESSOR
LIMITER
VCO
310K
540K
AU REC CH-1
AU REC CH-2
VITC
VITC REF SYNC MIX
Y RF CH EQ
REC Y RF
AFM-6/6P
AU CONFI PB CH-1
AU CONFI PB CH-2
CONFI AMP
PB CONFI CH-1
PB CONFI CH-2
TC CROSS TALK CANCEL
AUDIO EE/PB
MIX
MONITOR LEVEL
ALARM LEVEL
ALARM TONE
2/2
VR-70
HP-43
MONITOR
CN903 EARPHONE
SP901 SPEAKER
TC-48A/48AP(1/2)
TC R/P
TC HEAD AMP/SWITCH
TC REC
TC PB
TB-5
BT001
BATTERY
BATT
EXT DC
CN004 EXT +12V
CB1 4A
UNSW +12V
VOLTAGE CONTROLLER
BATT +5V
POWER
UNREG +12V
CN001 DC OUT
PS-162(2/2)
AUDIO CH-1 R/P
AUDIO CH-2 R/P
PB
REC
H:REC
CH-1 HEAD AMP
CH-2 HEAD AMP
FL-55
AU CH-1 REC
AU CH-1 PB
AU CH-2 REC
AU CH-2 PB
CH-1 REC AMP
H:METAL L:OXIDE
CH-1 METAL AMP
CH-1 OXIDE AMP
NOISE REDUCTION
(-18dB)
(-10dB)
EE
PB
CH-1 PB AMP (20, 56dB)
CH-1 PB EQ AMP
SAME AS CHANNEL 1
BIAS OSC
+10V REGULATOR
UNREG +12V
H003 FULL ERASE
ERASE OSC
FE OSC
FE-4(1/3)
L:OSC ON
REW FF PLAY
SERIAL PARALLEL CONVERTER
SYSTEM CONTROL DAT
AU-97/97P

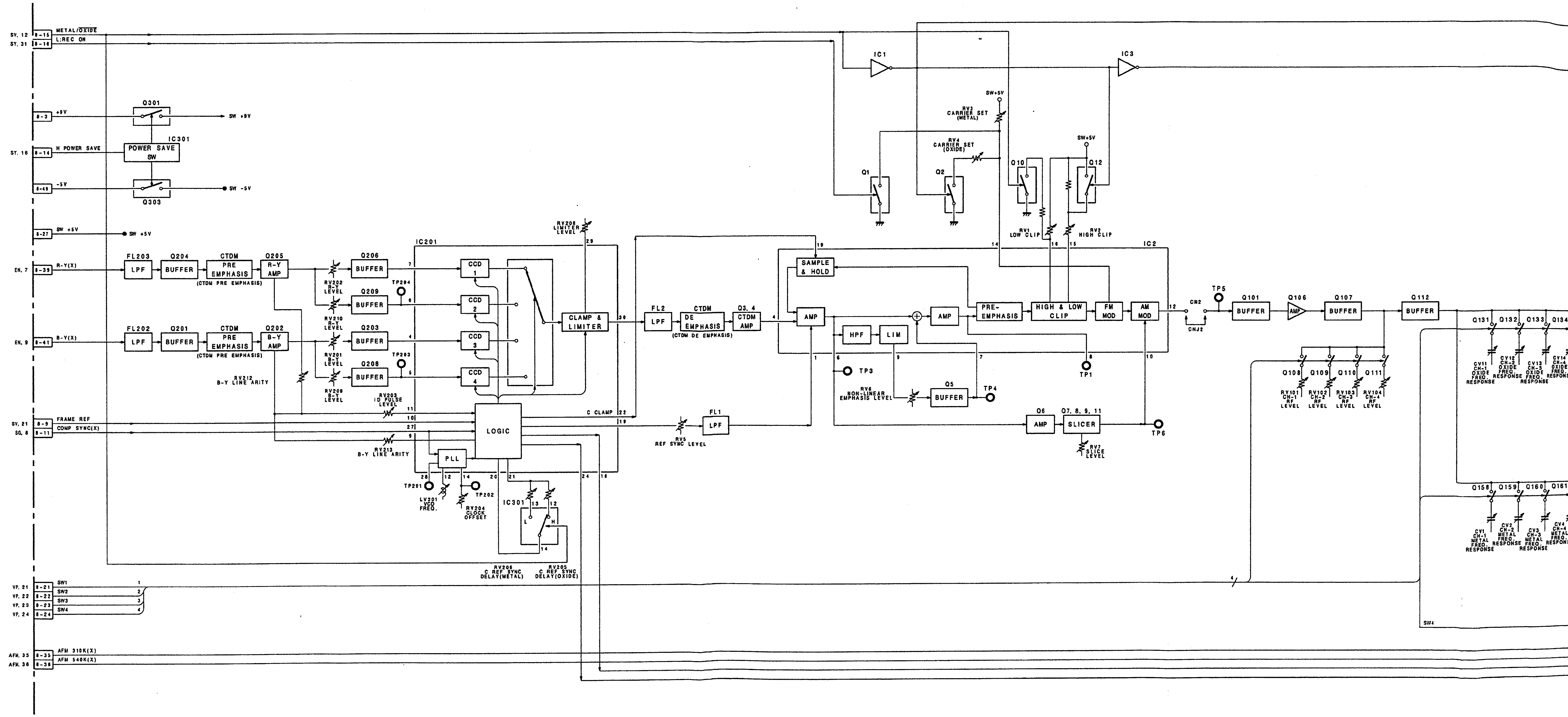

TAPE END SENSOR
TAPE TOP/END
FE-4(2/3)
TAPE TOP SENSOR
M001 LOADING MOTOR
M
LD-21
FUNCTION KEY
FUNCTION LED
KY-124
DATA SELECTOR
CASSETTE IN SENSOR
METAL REC OK SENSOR
CASSETTE LOCK SENSOR
OXIDE REC OK SENSOR
METAL/OXIDE SENSOR
S-REEL FG
T-REEL FG
ROTOR 0-3 SENSOR
SR-40
L:TAPE DET
LOADING 1, 2
SELECT DATA 1, 2
S-REEL FG
T-REEL FG
ROTORO-3
SYSTEM CONTROL MICROCOMPUTER
RF DETECT
VF PB/CAM
BATT IND
REC TALLY
INT REC TALLY
PB CTL
SY-117C /117CP
BACK TALLY
SW-291
SYSTEM CONTROL DATA BUS(SERIAL)
AFM MIX
C RF CH EQ
REC C RF
VDA-11/11P
FM 310K
AFM 540K
310K
540K
AU REC CH-1
AU REC CH-2
VITC
FM MOD
Y RF CH EQ
REC Y RF
AFM-6/6P
ATT
(-16dB)
EE
PB
H:PB
CH-1 PB AMP
(20, 8dB)
(-10dB)
REW FF PLAY
L:DSC ON
SERIAL-PARALLEL CONVERTER
AU-97/97P
SYSTEM CONTROL DATA BUS(SERIAL)
CN016 TC IN
CN017 TC OUT
TC INPUT AMP
TC OUTPUT AMP
H:PB
TC PB
TC REC
TC I
TC O
VCO
H:TC REC RUN
PB CTL
VITC
TIME CODE MODULE
TIME CODE MODULE CONTROLLER
VITC INSERT LINE SELECTOR
TIME CODE GEN MODE SWITCH
LCD MODULE
ONE CHIP MICROCOMPUTER (INTERFACE)
EEPROM
TC-48A/48AP(2/2)
DRUM PG
DRUM FG
DRUM ASSY
DRUM PG AMP
DRUM FG AMP
CAPSTAN FG(X)
CAPSTAN MOTOR ASSY
CAPSTAN FG A, B
CAP FG AMP
CAP FG AMP
L:SLOW
COMP SYNC
FROM CAMERA, SG
FIELD PULSE
REC CTL AMP
H:CTL REC
H002 CTL R/P
FE-4(3/3)
CS1 DEW SENSOR
PB CTL AMP
DRUM/CAPSTAN CONTROLLER
DRUM DRIVE
CAPSTAN SERVO
H:STOP
STOP SERVO
CAPSTAN DRIVE
CAPSTAN DIRECTION
CAPSTAN FWD/REV COMMAND
PB CTL
SW PULSE STA
SW PULSE TRG
SV-97A/97AP
DRUM MOTOR CONTROLLER
DRUM
M
DRUM ASS'Y
CAPSTAN MOTOR CONTROLLER
M002 CAPSTAN
M
CAPSTAN MOTOR ASS'Y
MB-317/317P

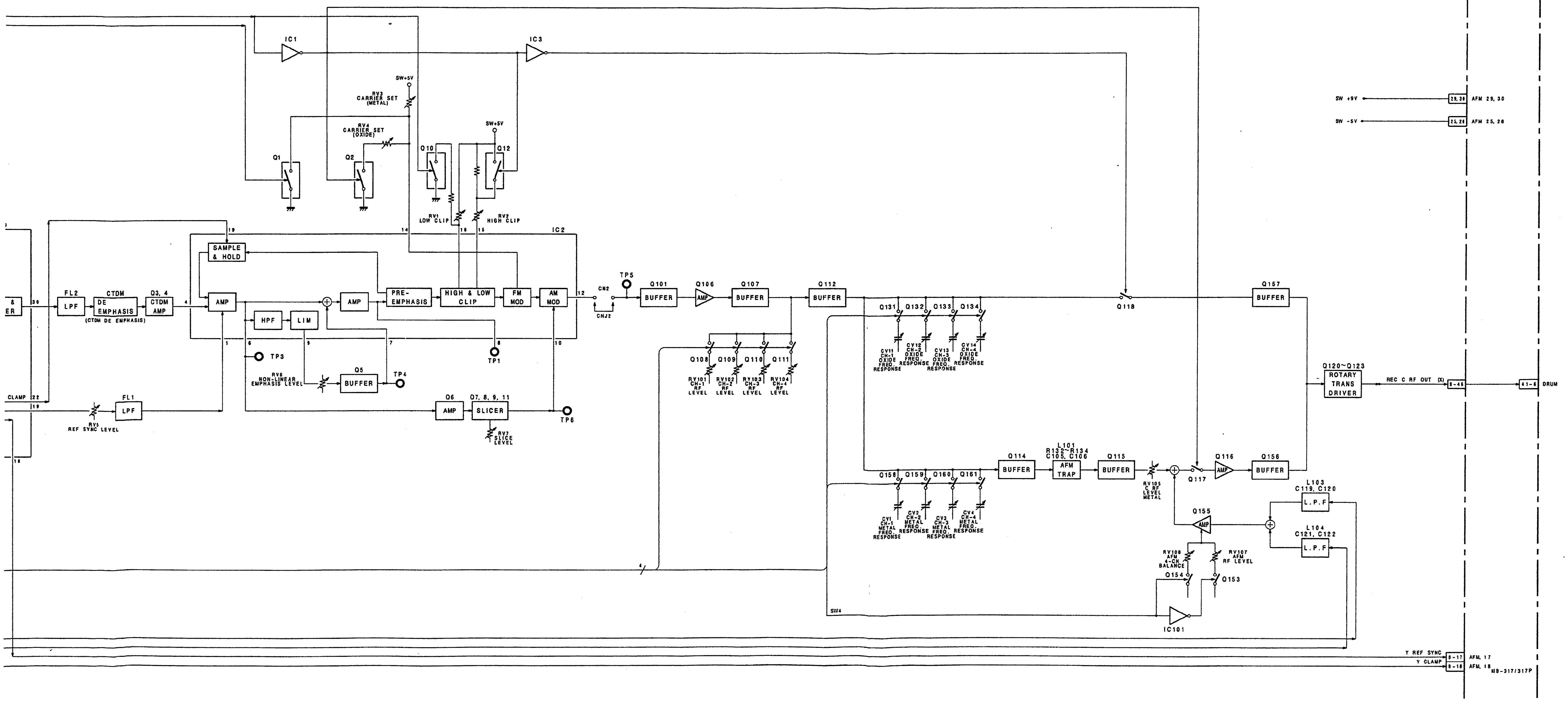
OVERALL
VTR BLOCK

BVW-400A (J) ;#30936-
BVW-400A (UC) ;#11054-
BVW-400AP (EK) ;#41568-

CTDM AND C-MODULATOR

S/N;40001 through 41567


METAL/OXIDE
L:REC ON
SV, 12
SY, 31
Q301
+9V
SW +9V
IC301
H POWER SAVE
POWER SAVE SW
ST, 16
-5V
SW -5V
Q303
SW +5V
FL203
Q204
CTDM
Q205
LPF
BUFFER
PRE EMPHASIS
R-Y AMP
(CTDM PRE EMPHASIS)
R-Y(X)
EN, 7
FL202
Q201
Q202
B-Y AMP
B-Y(X)
EN, 9
RV212 B-Y LINE ARITY
Q206
Q209
Q203
Q208
RV202 R-Y LEVEL
RV210 R-Y LEVEL
RV201 B-Y LEVEL
RV209 B-Y LEVEL
TP204
TP203
IC201
CCD 1
CCD 2
CCD 3
CCD 4
RV208 LIMITER LEVEL
CLAMP & LIMITER
RV203 ID PULSE LEVEL
LOGIC
PLL
RV213 B-Y LINE ARITY
FRAME REF
COMP SYNC(X)
SV, 21
SG, 8
TP201
LV201 VCO FREQ.
RV204 CLOCK OFFSET
TP202
IC301
RV206 C REF SYNC DELAY(METAL)
RV205 C REF SYNC DELAY(OXIDE)
C CLAMP
FL2
LPF
CTDM
DE EMPHASIS
(CTDM DE EMPHASIS)
Q3, 4
CTDM AMP
RV5 REF SYNC LEVEL
FL1
LPF
IC1
IC3
SW+5V
RV3 CARRIER SET (METAL)
RV4 CARRIER SET (OXIDE)
Q1
Q2
Q10
Q12
RV1 LOW CLIP
RV2 HIGH CLIP
IC2
SAMPLE & HOLD
AMP
HPF
LIM
PRE-EMPHASIS
HIGH & LOW CLIP
FM MOD
AM MOD
TP3
TP4
TP1
RV6 NON-LINEAR EMPHASIS LEVEL
Q5
BUFFER
Q6
Q7, 8, 9, 11
SLICER
RV7 SLICE LEVEL
TP6
TP5
CN2
CNJ2
Q101
Q106
Q107
Q112
BUFFER
Q108
Q109
Q110
Q111
RV101 CH-1 RF LEVEL
RV102 CH-2 RF LEVEL
RV103 CH-3 RF LEVEL
RV104 CH-4 RF LEVEL
Q131
Q132
Q133
Q134
CV11 CH-1 OXIDE FREQ. RESPONSE
CV12 CH-2 OXIDE FREQ. RESPONSE
CV13 CH-3 OXIDE FREQ. RESPONSE
CV14 CH-4 OXIDE FREQ. RESPONSE
Q158
Q159
Q160
Q161
CV1 CH-1 METAL FREQ. RESPONSE
CV2 CH-2 METAL FREQ. RESPONSE
CV3 CH-3 METAL FREQ. RESPONSE
CV4 CH-4 METAL FREQ. RESPONSE
SW1
SW2
SW3
SW4
VP, 21
VP, 22
VP, 23
VP, 24
AFM 310K(X)
AFM 540K(X)
AFM, 35
AFM, 36


IC1
IC3
SW+5V
RV3
CARRIER SET
(METAL)
RV4
CARRIER SET
(OXIDE)
SW+5V
Q1
Q2
Q10
Q12
RV1
LOW CLIP
RV2
HIGH CLIP
19
14
16
15
IC2
SAMPLE
& HOLD
&
ER
30
FL2
LPF
CTDM
DE
EMPHASIS
(CTDM DE EMPHASIS)
Q3, 4
CTDM
AMP
4
AMP
HPF
LIM
AMP
PRE-
EMPHASIS
HIGH & LOW
CLIP
FM
MOD
AM
MOD
12
CN2
CNJ2
TP5
1
6
TP3
9
7
8
TP1
10
RV6
NON-LINEAR
EMPHASIS LEVEL
Q5
BUFFER
TP4
Q6
AMP
Q7, 8, 9, 11
SLICER
RV7
SLICE
LEVEL
TP6
CLAMP
22
19
RV5
REF SYNC LEVEL
FL1
LPF
18
Q101
BUFFER
Q106
AMP
Q107
BUFFER
Q112
BUFFER
Q108
Q109
Q110
Q111
RV101
CH-1
RF
LEVEL
RV102
CH-2
RF
LEVEL
RV103
CH-3
RF
LEVEL
RV104
CH-4
RF
LEVEL
Q131
Q132
Q133
Q134
CV11
CH-1
OXIDE
FREQ.
RESPONSE
CV12
CH-2
OXIDE
FREQ.
RESPONSE
CV13
CH-3
OXIDE
FREQ.
RESPONSE
CV14
CH-4
OXIDE
FREQ.
RESPONSE
Q118
Q157
BUFFER
Q158
Q159
Q160
Q161
CV1
CH-1
METAL
FREQ.
RESPONSE
CV2
CH-2
METAL
FREQ.
RESPONSE
CV3
CH-3
METAL
FREQ.
RESPONSE
CV4
CH-4
METAL
FREQ.
RESPONSE
Q114
BUFFER
L101
R132~R134
C105, C106
AFM
TRAP
Q115
BUFFER
RV105
C RF
LEVEL
METAL
Q117
Q116
AMP
Q156
BUFFER
L103
C119, C120
L.P.F
Q155
AMP
L104
C121, C122
L.P.F
RV108
AFM
4-CH
BALANCE
RV107
AFM
RF LEVEL
Q154
Q153
IC101
SW4
4
Q120~Q123
ROTARY
TRANS
DRIVER
REC C RF OUT (X)
8-46
41-6
DRUM
SW +9V
29, 30
AFM 29, 30
SW -5V
25, 26
AFM 25, 26
Y REF SYNC
8-17
AFM, 17
Y CLAMP
8-18
AFM, 18
MB-317/317P

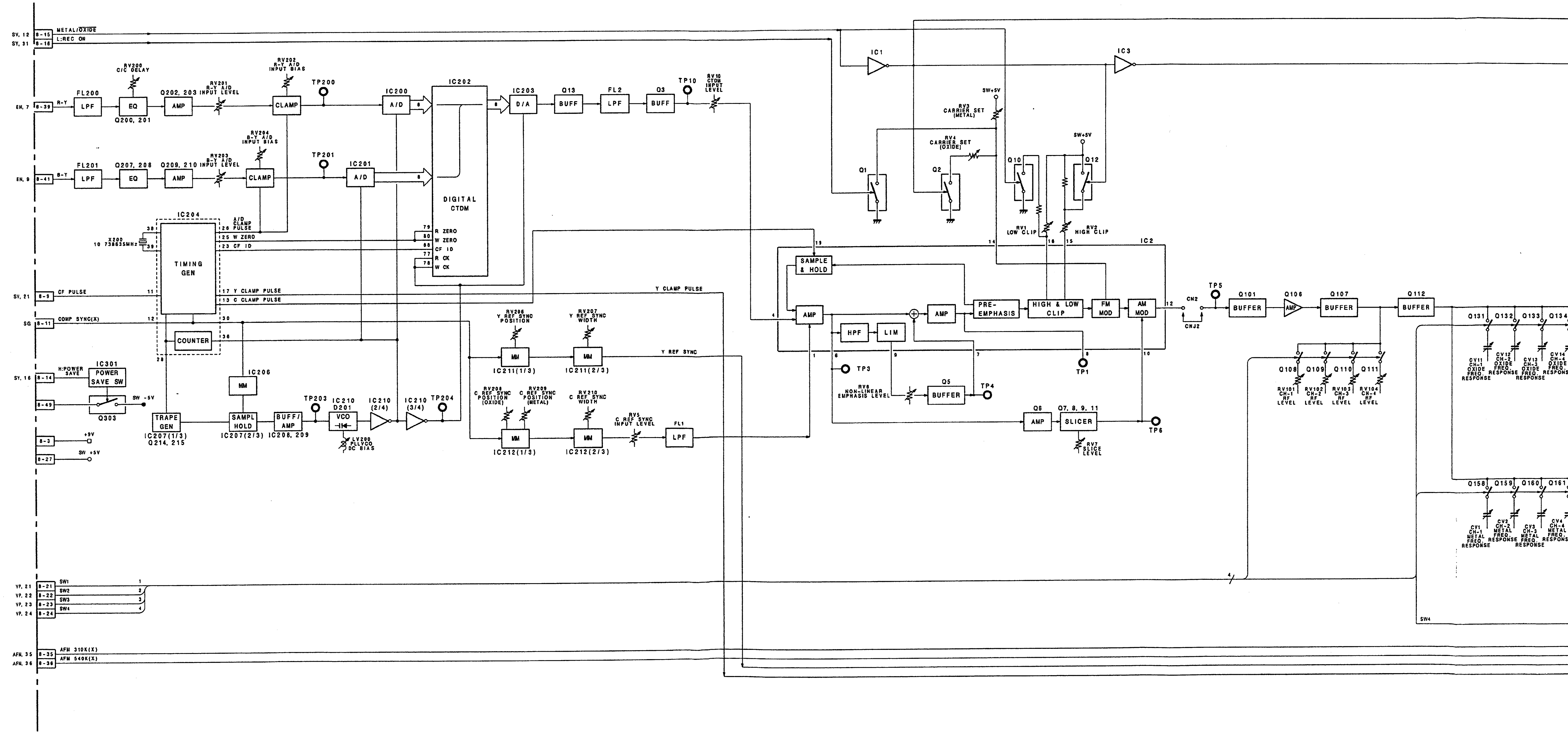
VDA-11/11P

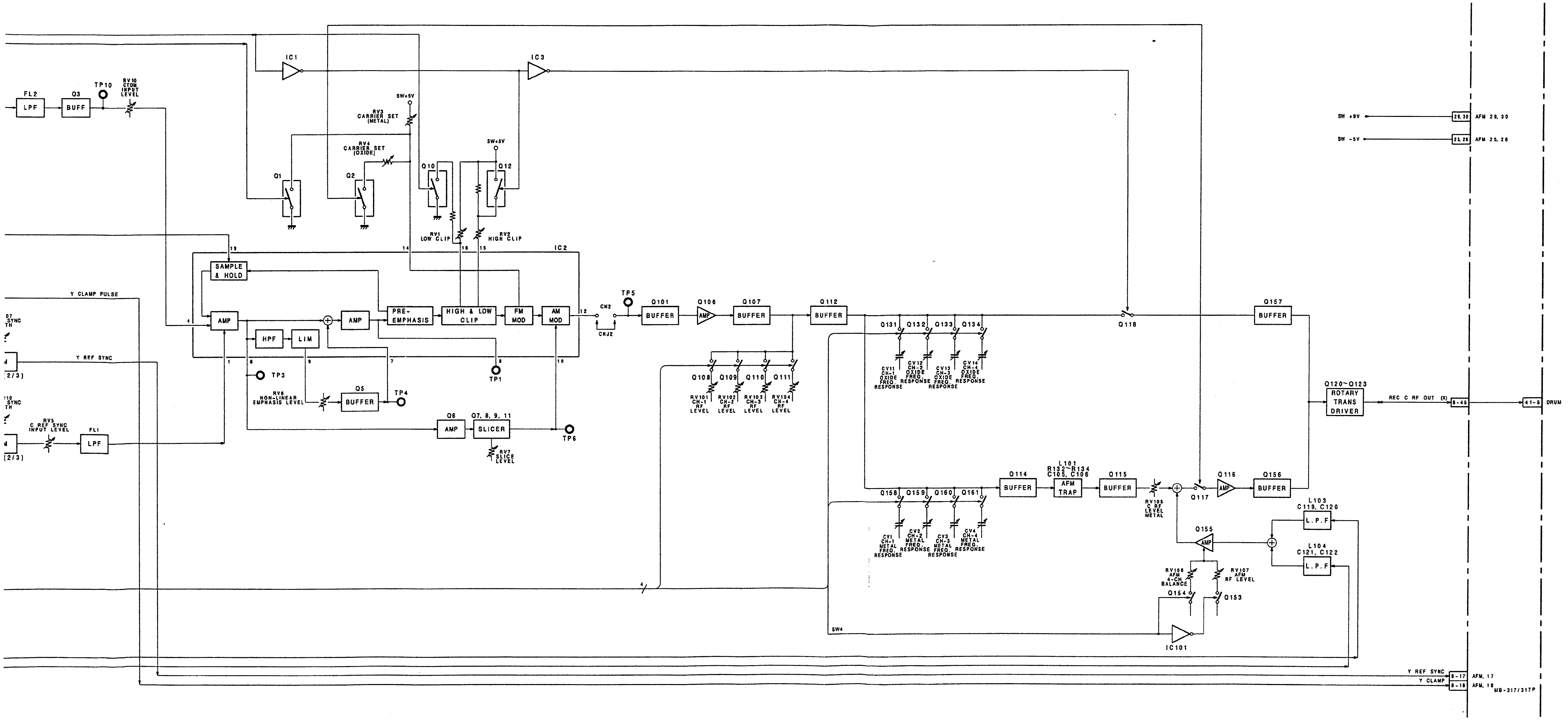
VIDEO BLOCK

BVW-400A (J) ;#30001-30935
BVW-400A (UC) ;#10001-11053
BVW-400AP (EK) ;#40001-41567

CTDM AND C-MODULATOR

S/N;41568 and higher

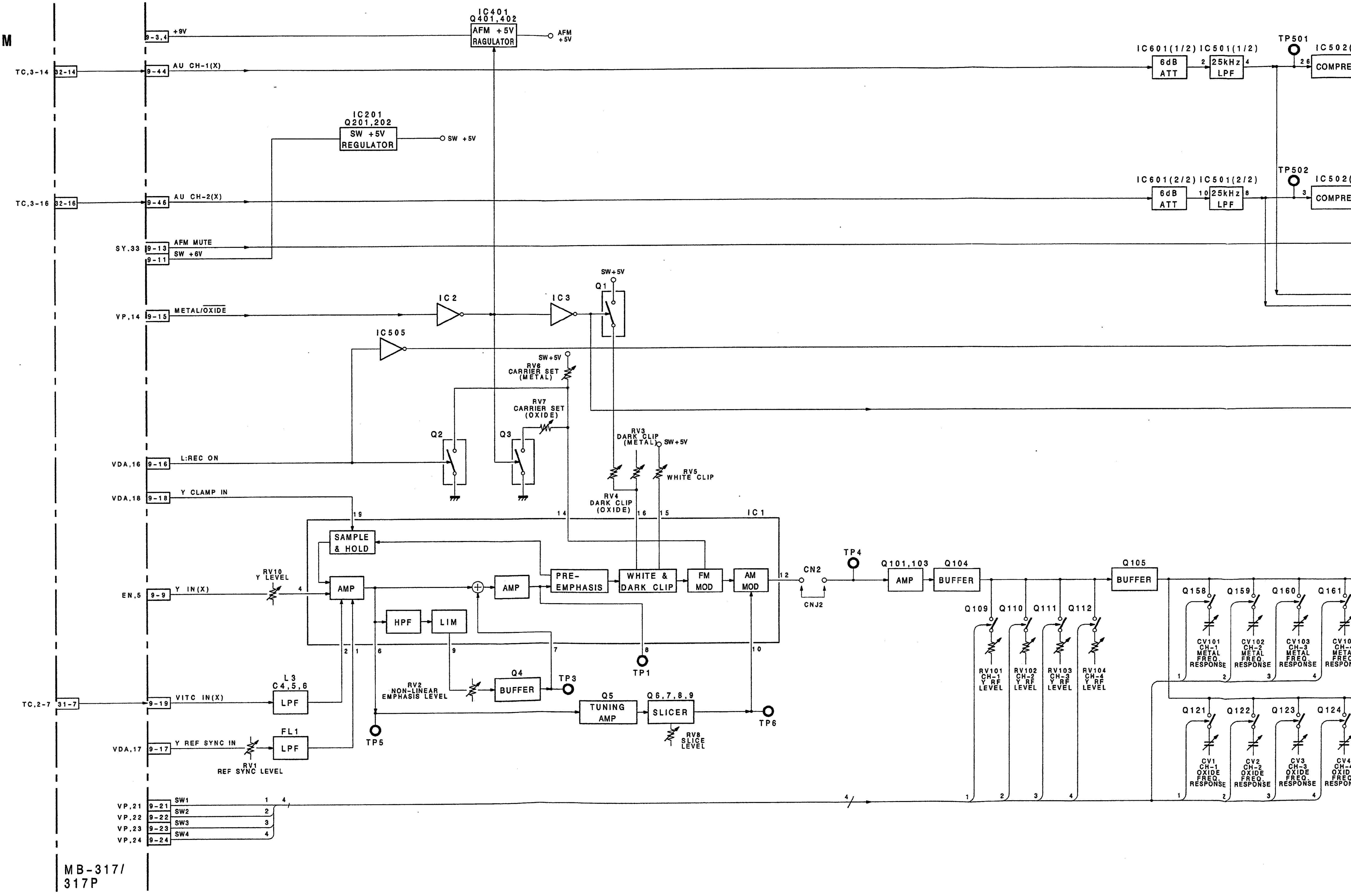

METAL/OXIDE
L:REC ON
R-Y
B-Y
FL200
LPF
EQ
AMP
Q200, 201
Q202, 203
RV200 C/C DELAY
RV201 R-Y A/D INPUT LEVEL
RV202 R-Y A/D INPUT BIAS
CLAMP
TP200
IC200
A/D
IC202
DIGITAL CTDM
IC203
D/A
Q13
BUFF
FL2
Q3
TP10
RV10 CTDM INPUT LEVEL
FL201
Q207, 208
Q209, 210
RV203 B-Y A/D INPUT LEVEL
RV204 B-Y A/D INPUT BIAS
TP201
IC201
IC204
X200 10.738635MHz
TIMING GEN
COUNTER
A/D CLAMP PULSE
W ZERO
CF ID
R ZERO
R CK
W CK
CF PULSE
Y CLAMP PULSE
C CLAMP PULSE
COMP SYNC(X)
IC301
H:POWER SAVE
POWER SAVE SW
SW -5V
Q303
+9V
SW +5V
IC206
MM
TRAPE GEN
SAMPL HOLD
BUFF/ AMP
IC207(1/3) Q214, 215
IC207(2/3)
IC208, 209
TP203
IC210 D201
VCO
LV200 PLLVCO DC BIAS
IC210 (2/4)
IC210 (3/4)
TP204
RV206 Y REF SYNC POSITION
RV207 Y REF SYNC WIDTH
IC211(1/3)
IC211(2/3)
Y REF SYNC
RV208 C REF SYNC POSITION (OXIDE)
RV209 C REF SYNC POSITION (METAL)
RV210 C REF SYNC WIDTH
IC212(1/3)
IC212(2/3)
RV5 C REF SYNC INPUT LEVEL
FL1
SW1
SW2
SW3
SW4
AFM 310K(X)
AFM 540K(X)
SV, 12
SV, 31
EN, 7
EN, 9
SV, 21
SG
SV, 16
VF, 21
VF, 22
VF, 23
VF, 24
AFM, 35
AFM, 36
IC1
IC3
SW+5V
RV3 CARRIER SET (METAL)
RV4 CARRIER SET (OXIDE)
Q1
Q2
Q10
Q12
RV1 LOW CLIP
RV2 HIGH CLIP
IC2
SAMPLE & HOLD
PRE-EMPHASIS
HIGH & LOW CLIP
FM MOD
AM MOD
HPF
LIM
TP3
RV6 NON-LINEAR EMPHASIS LEVEL
Q5
BUFFER
TP4
TP1
Q6
Q7, 8, 9, 11
SLICER
RV7 SLICE LEVEL
TP6
CN2
CNJ2
TP5
Q101
Q106
Q107
Q112
Q131
Q132
Q133
Q134
Q108
Q109
Q110
Q111
RV101 CH-1 RF LEVEL
RV102 CH-2 RF LEVEL
RV103 CH-3 RF LEVEL
RV104 CH-4 RF LEVEL
CV11 CH-1 OXIDE FREQ. RESPONSE
CV12 CH-2 OXIDE FREQ. RESPONSE
CV13 CH-3 OXIDE FREQ. RESPONSE
Q158
Q159
Q160
Q161
CV1 CH-1 METAL FREQ. RESPONSE
CV2 CH-2 METAL FREQ. RESPONSE
CV3 CH-3 METAL FREQ. RESPONSE

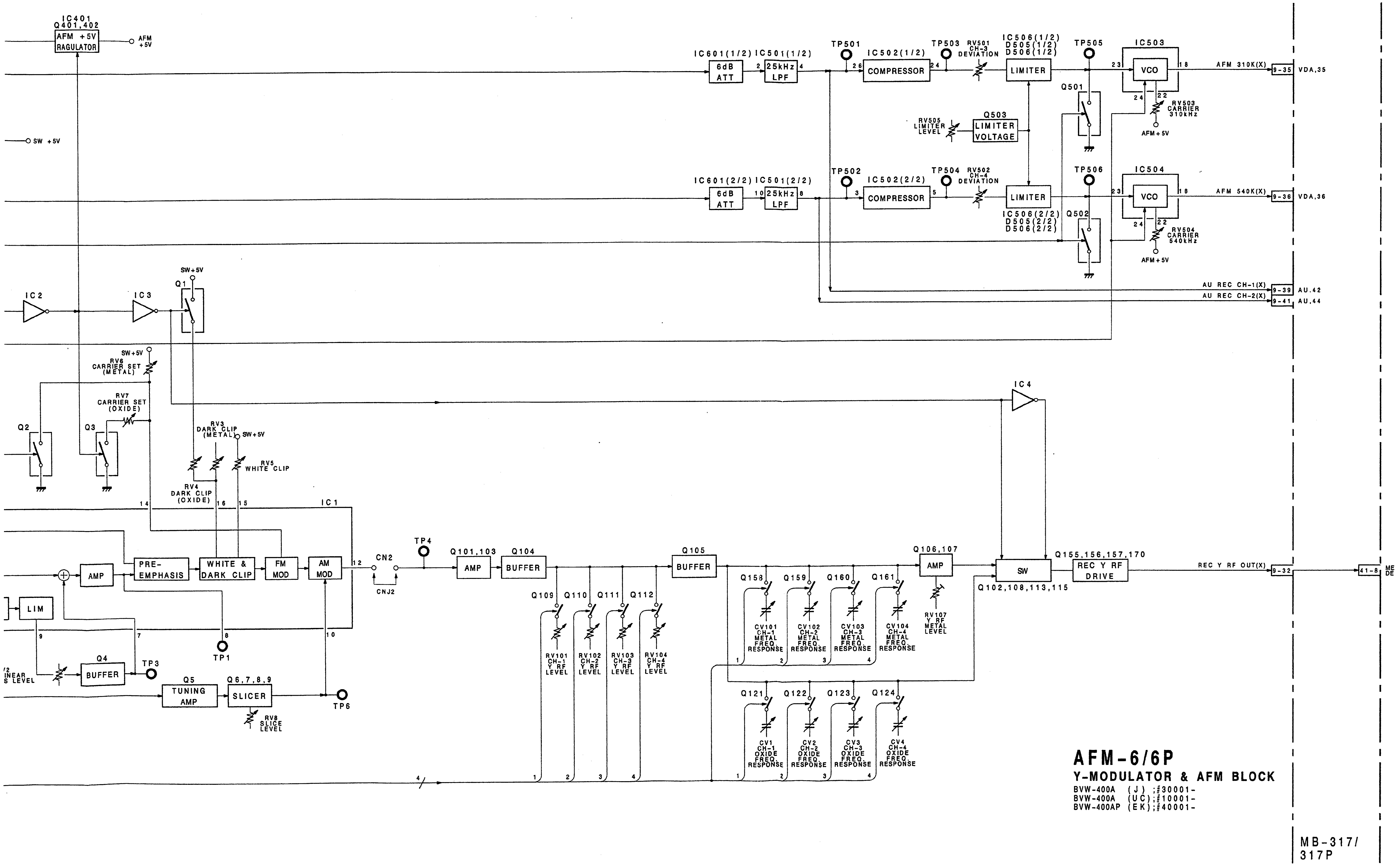

FL2
LPF
Q3
BUFF
TP10
RV10 CTDM INPUT LEVEL
IC1
IC3
SW+5V
RV3 CARRIER SET (METAL)
RV4 CARRIER SET (OXIDE)
Q1
Q2
Q10
Q12
SW+5V
RV1 LOW CLIP
RV2 HIGH CLIP
19
14
16
15
IC2
SAMPLE & HOLD
Y CLAMP PULSE
07 SYNC TH
AMP
4
HPF
LIM
AMP
PRE-EMPHASIS
HIGH & LOW CLIP
FM MOD
AM MOD
12
CN2
CNJ2
TP5
Y REF SYNC
(2/3)
1
6
9
7
8
10
TP3
TP1
10 SYNC TH
RV6 NON-LINEAR EMPHASIS LEVEL
Q5
BUFFER
TP4
RV5 C REF SYNC INPUT LEVEL
FL1
LPF
(2/3)
Q6
AMP
Q7, 8, 9, 11
SLICER
RV7 SLICE LEVEL
TP6
Q101
BUFFER
Q106
AMP
Q107
BUFFER
Q112
BUFFER
Q108
Q109
Q110
Q111
RV101 CH-1 RF LEVEL
RV102 CH-2 RF LEVEL
RV103 CH-3 RF LEVEL
RV104 CH-4 RF LEVEL
4
Q131
Q132
Q133
Q134
CV11 CH-1 OXIDE FREQ. RESPONSE
CV12 CH-2 OXIDE FREQ. RESPONSE
CV13 CH-3 OXIDE FREQ. RESPONSE
CV14 CH-4 OXIDE FREQ. RESPONSE
Q118
Q157
BUFFER
Q120~Q123
ROTARY TRANS DRIVER
REC C RF OUT (X)
8-45
41-5
DRUM
SW +9V
29, 30
AFM 29, 30
SW -5V
25, 26
AFM 25, 26
Q158
Q159
Q160
Q161
CV1 CH-1 METAL FREQ. RESPONSE
CV2 CH-2 METAL FREQ. RESPONSE
CV3 CH-3 METAL FREQ. RESPONSE
CV4 CH-4 METAL FREQ. RESPONSE
Q114
BUFFER
L101 R132~R134 C105, C106
AFM TRAP
Q115
BUFFER
RV105 C RF LEVEL METAL
Q117
Q116
AMP
Q156
BUFFER
L103 C119, C120
L.P.F
L104 C121, C122
L.P.F
Q155
AMP
RV106 AFM 4-CH BALANCE
RV107 AFM RF LEVEL
Q154
Q153
SW4
IC101
Y REF SYNC
Y CLAMP
8-17
8-18
AFM, 17
AFM, 18
MB-317/317P

VDA-11/11P
VIDEO BLOCK

BVW-400A (J) ;#30936-
BVW-400A (UC) ;#11054-
BVW-400AP (EK) ;#41568-

Y-MODULATOR,AFM


IC401
Q401,402
AFM +5V
RAGULATOR
AFM +5V
9-3,4
+9V
TC,3-14
32-14
9-44
AU CH-1(X)
IC201
Q201,202
SW +5V
REGULATOR
SW +5V
TC,3-16
32-16
9-46
AU CH-2(X)
SY,33
9-13
AFM MUTE
9-11
SW +6V
VP,14
9-15
METAL/OXIDE
IC2
IC3
Q1
SW+5V
IC505
RV6
CARRIER SET
(METAL)
RV7
CARRIER SET
(OXIDE)
Q2
Q3
RV3
DARK CLIP
(METAL)
RV5
WHITE CLIP
RV4
DARK CLIP
(OXIDE)
VDA,16
9-16
L:REC ON
VDA,18
9-18
Y CLAMP IN
IC1
SAMPLE
& HOLD
AMP
PRE-
EMPHASIS
WHITE &
DARK CLIP
FM
MOD
AM
MOD
HPF
LIM
EN,5
9-9
Y IN(X)
RV10
Y LEVEL
RV2
NON-LINEAR
EMPHASIS LEVEL
Q4
BUFFER
TP3
TP1
Q5
TUNING
AMP
Q6,7,8,9
SLICER
RV8
SLICE
LEVEL
TP6
TP5
TC,2-7
31-7
9-19
VITC IN(X)
L3
C4,5,6
LPF
VDA,17
9-17
Y REF SYNC IN
FL1
RV1
REF SYNC LEVEL
CN2
CNJ2
TP4
Q101,103
AMP
Q104
BUFFER
Q105
BUFFER
Q109
Q110
Q111
Q112
RV101
CH-1
Y RF
LEVEL
RV102
CH-2
Y RF
LEVEL
RV103
CH-3
Y RF
LEVEL
RV104
CH-4
Y RF
LEVEL
Q158
Q159
Q160
Q161
CV101
CH-1
METAL
FREQ.
RESPONSE
CV102
CH-2
METAL
FREQ.
RESPONSE
CV103
CH-3
METAL
FREQ.
RESPONSE
Q121
Q122
Q123
Q124
CV1
CH-1
OXIDE
FREQ.
RESPONSE
CV2
CH-2
OXIDE
FREQ.
RESPONSE
CV3
CH-3
OXIDE
FREQ.
RESPONSE
IC601(1/2)
6dB
ATT
IC501(1/2)
25kHz
LPF
TP501
IC502
COMPRE
IC601(2/2)
IC501(2/2)
TP502
VP,21
VP,22
VP,23
VP,24
9-21
9-22
9-23
9-24
SW1
SW2
SW3
SW4
MB-317/
317P


IC401
Q401,402
AFM +5V
RAGULATOR
AFM +5V
SW +5V
IC601(1/2)
IC501(1/2)
6dB ATT
25kHz LPF
TP501
IC502(1/2)
COMPRESSOR
TP503
RV501 CH-3 DEVIATION
IC506(1/2)
D505(1/2)
D506(1/2)
LIMITER
TP505
IC503
VCO
Q501
RV503 CARRIER 310kHz
AFM+5V
AFM 310K(X)
9-35
VDA,35
RV505 LIMITER LEVEL
Q503
LIMITER VOLTAGE
IC601(2/2)
IC501(2/2)
TP502
IC502(2/2)
TP504
RV502 CH-4 DEVIATION
TP506
IC504
IC506(2/2)
D505(2/2)
D506(2/2)
Q502
RV504 CARRIER 540kHz
AFM 540K(X)
9-36
VDA,36
AU REC CH-1(X)
9-39
AU,42
AU REC CH-2(X)
9-41
AU,44
IC2
IC3
SW+5V
Q1
RV6 CARRIER SET (METAL)
RV7 CARRIER SET (OXIDE)
Q2
Q3
RV3 DARK CLIP (METAL)
RV5 WHITE CLIP
RV4 DARK CLIP (OXIDE)
IC1
IC4
AMP
PRE-EMPHASIS
WHITE & DARK CLIP
FM MOD
AM MOD
CN2
CNJ2
TP4
Q101,103
AMP
Q104
BUFFER
Q105
BUFFER
Q106,107
AMP
SW
Q155,156,157,170
REC Y RF DRIVE
Q102,108,113,115
REC Y RF OUT(X)
9-32
41-8
MECHA DECK
LIM
TP1
Q4
BUFFER
TP3
LINEAR S LEVEL
Q5
TUNING AMP
Q6,7,8,9
SLICER
RV8 SLICE LEVEL
TP6
Q109
Q110
Q111
Q112
RV101 CH-1 Y RF LEVEL
RV102 CH-2 Y RF LEVEL
RV103 CH-3 Y RF LEVEL
RV104 CH-4 Y RF LEVEL
Q158
Q159
Q160
Q161
CV101 CH-1 METAL FREQ. RESPONSE
CV102 CH-2 METAL FREQ. RESPONSE
CV103 CH-3 METAL FREQ. RESPONSE
CV104 CH-4 METAL FREQ. RESPONSE
RV107 Y RF METAL LEVEL
Q121
Q122
Q123
Q124
CV1 CH-1 OXIDE FREQ. RESPONSE
CV2 CH-2 OXIDE FREQ. RESPONSE
CV3 CH-3 OXIDE FREQ. RESPONSE
CV4 CH-4 OXIDE FREQ. RESPONSE

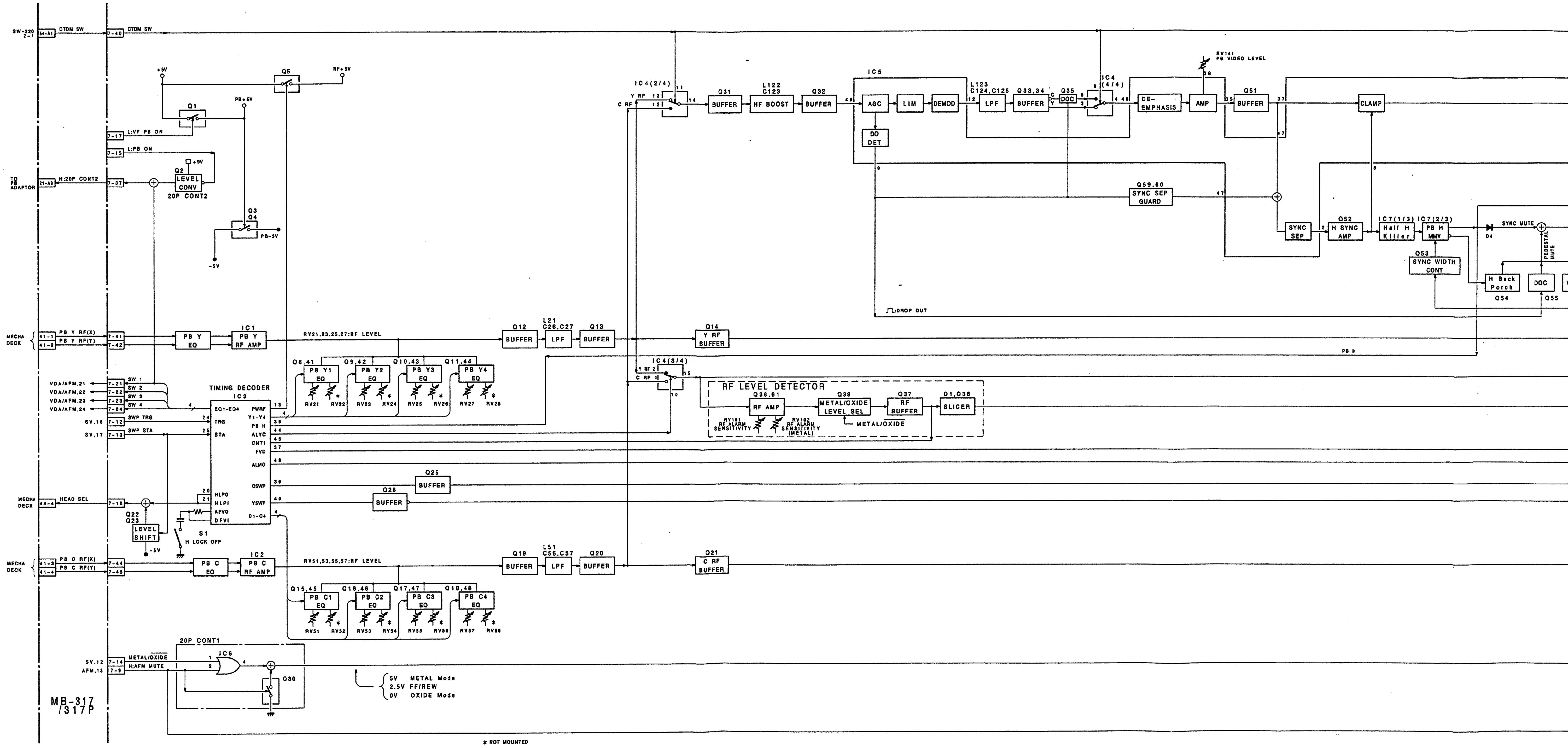
AFM-6/6P

Y-MODULATOR & AFM BLOCK

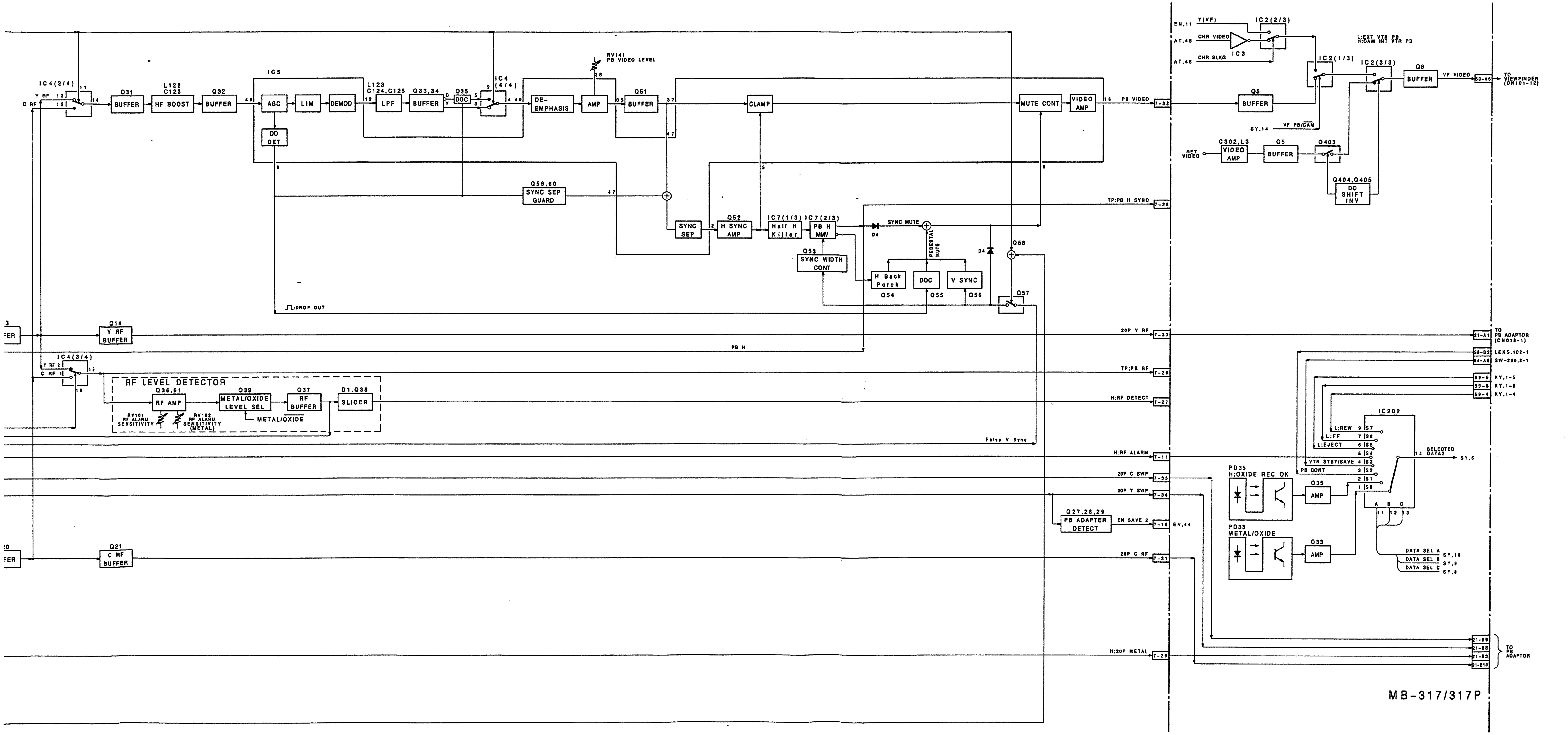
BVW-400A (J) ;#30001-
BVW-400A (UC);#10001-
BVW-400AP (EK);#40001-

MB-317/317P

VIDEO PB


SW-220 2-1
CTDM SW
+5V
RF+5V
Q5
Q1
PB+5V
L:VF PB ON
L:PB ON
TO PB ADAPTOR
H:20P CONT2
Q2 LEVEL CONV
20P CONT2
Q3 Q4
PB-5V
-5V
MECHA DECK
PB Y RF(X)
PB Y RF(Y)
PB Y EQ
IC1 PB Y RF AMP
RV21,23,25,27:RF LEVEL
Q12 BUFFER
L21 C26,C27 LPF
Q13 BUFFER
Q14 Y RF BUFFER
Q8,41 PB Y1 EQ
Q9,42 PB Y2 EQ
Q10,43 PB Y3 EQ
Q11,44 PB Y4 EQ
RV21 RV22 RV23 RV24 RV25 RV26 RV27 RV28
VDA/AFM,21
VDA/AFM,22
VDA/AFM,23
VDA/AFM,24
SW 1
SW 2
SW 3
SW 4
SV,16 SWP TRG
SV,17 SWP STA
TIMING DECODER IC3
EQ1-EQ4
TRG
STA
PWRF
Y1-Y4
PB H
ALYC
CNT1
FVD
ALMO
CSWP
YSWP
HLPO
HLPI
AFVO
DFVI
C1-C4
Q25 BUFFER
Q26 BUFFER
HEAD SEL
Q22 Q23 LEVEL SHIFT
S1 H LOCK OFF
PB C RF(X)
PB C RF(Y)
PB C EQ
IC2 PB C RF AMP
RV51,53,55,57:RF LEVEL
Q19 BUFFER
L51 C56,C57 LPF
Q20 BUFFER
Q21 C RF BUFFER
Q15,45 PB C1 EQ
Q16,46 PB C2 EQ
Q17,47 PB C3 EQ
Q18,48 PB C4 EQ
RV51 RV52 RV53 RV54 RV55 RV56 RV57 RV58
20P CONT1
SV,12 METAL/OXIDE
AFM,13 H;AFM MUTE
IC6
Q30
5V METAL Mode
2.5V FF/REW
0V OXIDE Mode
MB-317 /317P
IC4(2/4)
Y RF
C RF
IC4(3/4)
Y RF 2
C RF 1
Q31 BUFFER
L122 C123 HF BOOST
Q32 BUFFER
IC5
AGC
LIM
DEMOD
DO DET
L123 C124,C125 LPF
Q33,34 BUFFER
Q35 DOC
IC4 (4/4)
RV141 PB VIDEO LEVEL
DE-EMPHASIS
AMP
Q51 BUFFER
CLAMP
Q59,60 SYNC SEP GUARD
SYNC SEP
Q52 H SYNC AMP
IC7(1/3) Half H Killer
IC7(2/3) PB H MMV
SYNC MUTE
D4
PEDESTAL MUTE
Q53 SYNC WIDTH CONT
H Back Porch
Q54
DOC
Q55
DROP OUT
PB H
RF LEVEL DETECTOR
Q36,61 RF AMP
Q39 METAL/OXIDE LEVEL SEL
Q37 RF BUFFER
D1,Q38 SLICER
RV101 RF ALARM SENSITIVITY
RV102 RF ALARM SENSITIVITY (METAL)
METAL/OXIDE

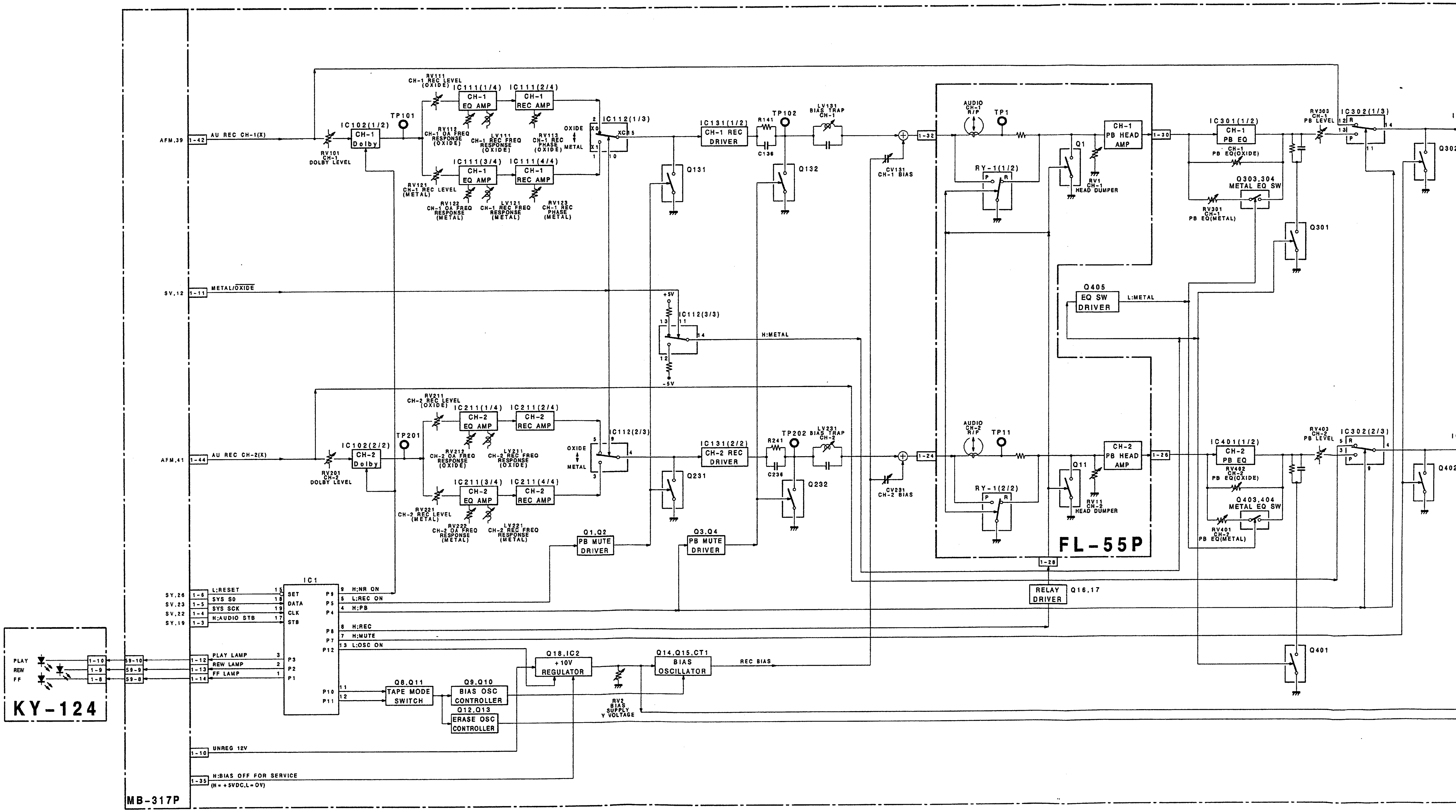
* NOT MOUNTED

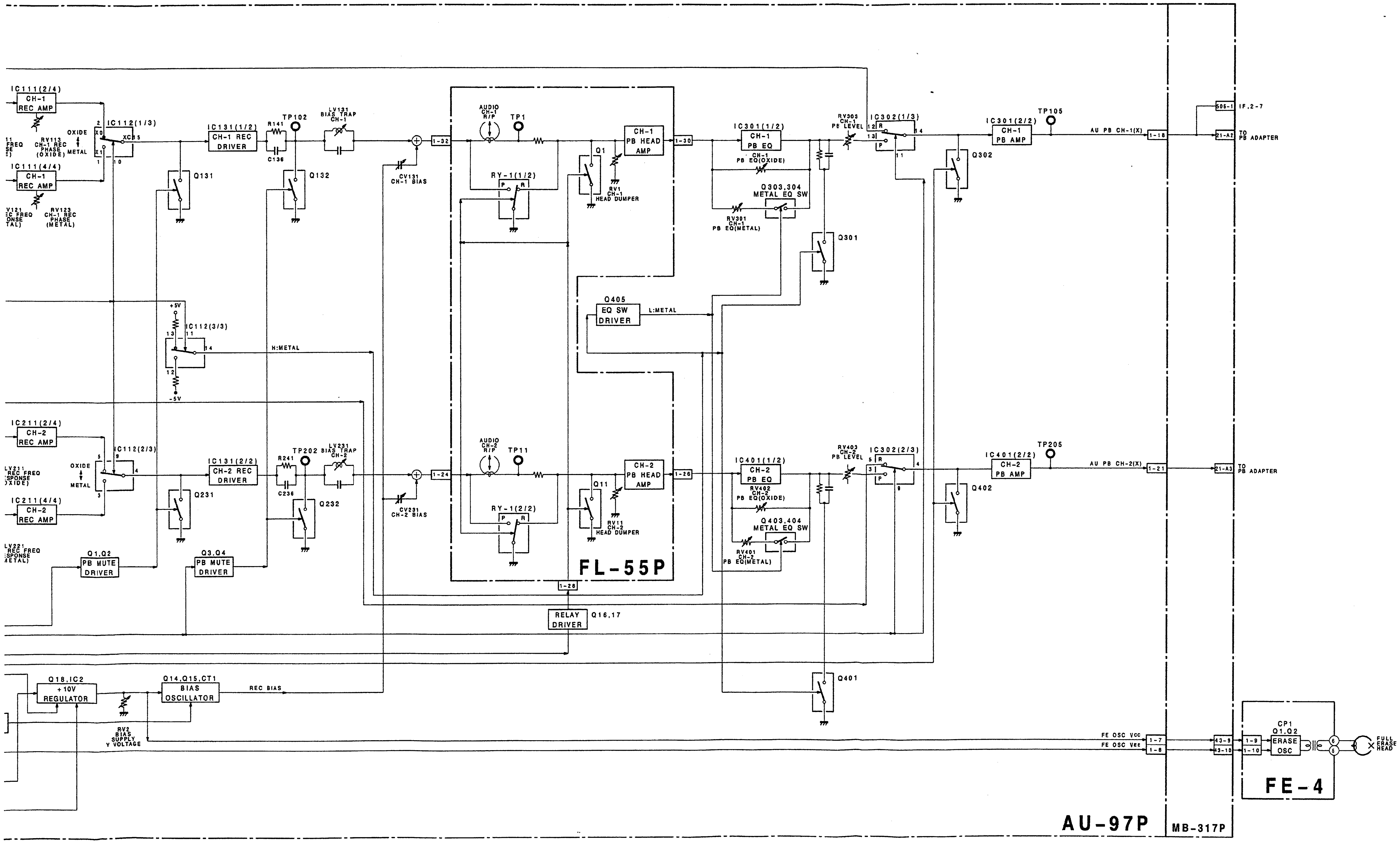

IC4(2/4)
Y RF
C RF
Q31
BUFFER
L122
C123
HF BOOST
Q32
BUFFER
IC5
AGC
LIM
DEMOD
DO
DET
L123
C124,C125
LPF
Q33,34
BUFFER
Q35
DOC
IC4
(4/4)
DE-
EMPHASIS
RV141
PB VIDEO LEVEL
AMP
Q51
BUFFER
CLAMP
MUTE CONT
VIDEO
AMP
PB VIDEO
Q59,60
SYNC SEP
GUARD
SYNC
SEP
Q52
H SYNC
AMP
IC7(1/3)
Half H
Killer
IC7(2/3)
PB H
MMV
Q53
SYNC WIDTH
CONT
SYNC MUTE
PEDESTAL
MUTE
D4
H Back
Porch
Q54
DOC
Q55
V SYNC
Q56
Q58
Q57
DROP OUT
TP:PB H SYNC
Q14
Y RF
BUFFER
PB H
20P Y RF
IC4(3/4)
RF LEVEL DETECTOR
Q36,61
RF AMP
RV101
RF ALARM
SENSITIVITY
RV102
RF ALARM
SENSITIVITY
(METAL)
Q39
METAL/OXIDE
LEVEL SEL
METAL/OXIDE
Q37
RF
BUFFER
D1,Q38
SLICER
TP:PB RF
H:RF DETECT
False V Sync
H:RF ALARM
20P C SWP
20P Y SWP
Q27,28,29
PB ADAPTER
DETECT
EN SAVE 2
EN,44
Q21
C RF
BUFFER
20P C RF
H:20P METAL
7-38
7-28
7-33
7-26
7-27
7-11
7-35
7-36
7-18
7-31
7-29
EN,11
AT,45
AT,46
Y(VF)
CHR VIDEO
CHR BLKG
IC3
IC2(2/3)
IC2(1/3)
IC2(3/3)
L:EXT VTR PB
H:CAM INT VTR PB
Q6
BUFFER
VF VIDEO
59-A6
TO
VIEWFINDER
(CN101-12)
Q5
BUFFER
SY,14
VF PB/CAM
RET
VIDEO
C302,L3
VIDEO
AMP
Q5
BUFFER
Q403
Q404,Q405
DC
SHIFT
INV
21-A1
TO
PB ADAPTOR
(CN018-1)
58-B3
LENS,102-1
54-A6
SW-220,2-1
59-5
KY,1-5
59-6
KY,1-6
59-4
KY,1-4
IC202
L:REW
L:FF
L:EJECT
VTR STBY/SAVE
PB CONT
SELECTED
DATA2
SY,6
PD35
H:OXIDE REC OK
Q35
AMP
PD33
METAL/OXIDE
Q33
AMP
DATA SEL A
DATA SEL B
DATA SEL C
SY,10
SY,9
SY,8
21-B6
21-B8
21-B3
21-B10
TO
PB
ADAPTOR
MB-317/317P

VP-24/24P
VIDEO PLAY BACK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

AUDIO REC/PB

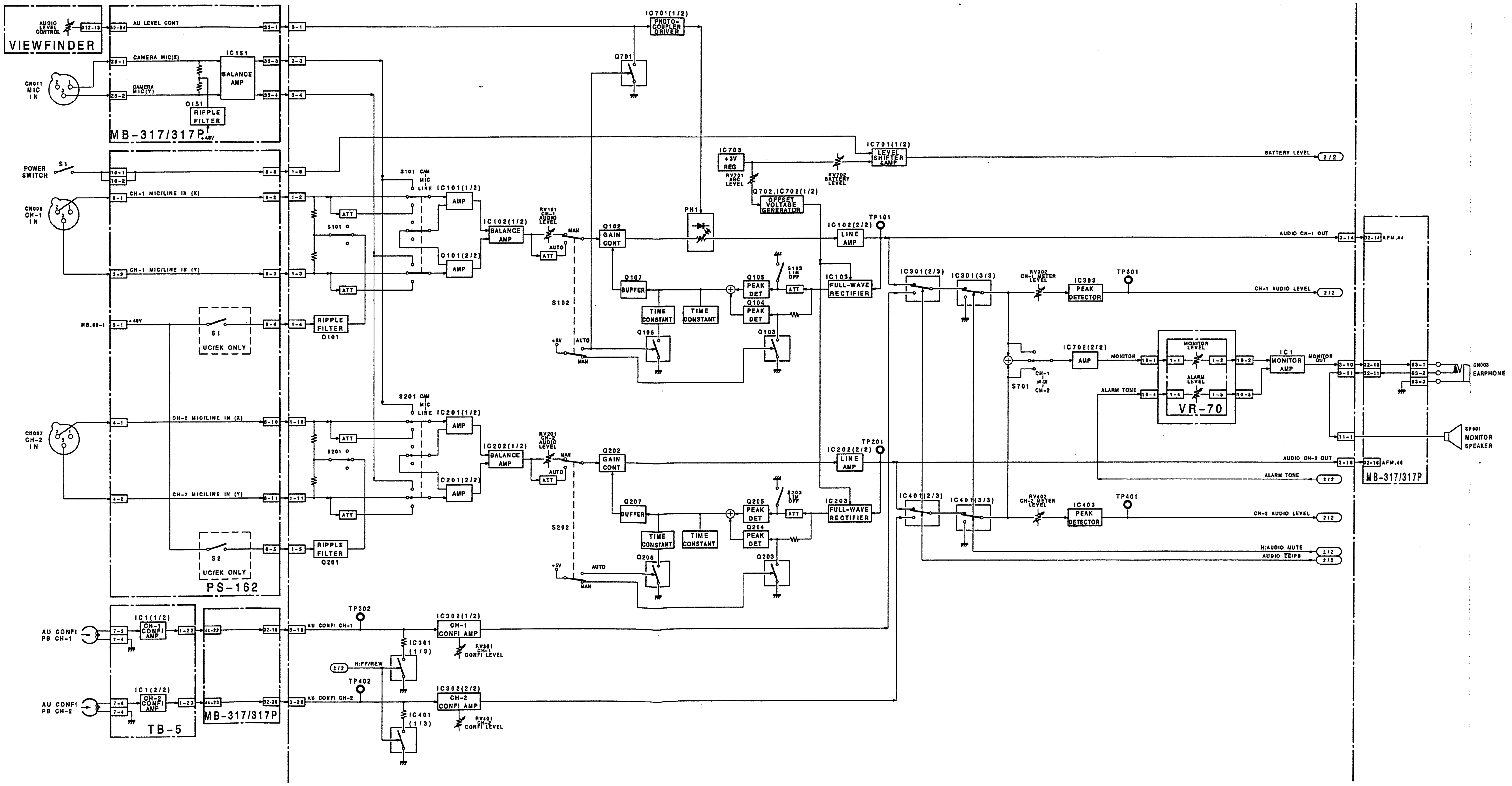

AFM,39
1-42
AU REC CH-1(X)
RV101 CH-1 DOLBY LEVEL
IC102(1/2) CH-1 Dolby
TP101
RV111 CH-1 REC LEVEL (OXIDE)
IC111(1/4) CH-1 EQ AMP
IC111(2/4) CH-1 REC AMP
RV112 CH-1 OA FREQ RESPONSE (OXIDE)
LV111 CH-1 REC FREQ RESPONSE (OXIDE)
RV113 CH-1 REC PHASE (OXIDE)
OXIDE
METAL
IC111(3/4) CH-1 EQ AMP
IC111(4/4) CH-1 REC AMP
RV121 CH-1 REC LEVEL (METAL)
RV122 CH-1 OA FREQ RESPONSE (METAL)
LV121 CH-1 REC FREQ RESPONSE (METAL)
RV123 CH-1 REC PHASE (METAL)
IC112(1/3)
IC131(1/2) CH-1 REC DRIVER
R141
C136
TP102
LV131 BIAS TRAP CH-1
Q131
Q132
CV131 CH-1 BIAS
1-32
AUDIO CH-1 R/P
TP1
RY-1(1/2)
CH-1 PB HEAD AMP
Q1
RV1 CH-1 HEAD DUMPER
1-30
IC301(1/2) CH-1 PB EQ
CH-1 PB EQ(OXIDE)
Q303,304 METAL EQ SW
RV301 CH-1 PB EQ(METAL)
RV303 CH-1 PB LEVEL
IC302(1/3)
Q302
Q301
SV,12
1-11
METAL/OXIDE
+5V
IC112(3/3)
H:METAL
-5V
Q405 EQ SW DRIVER
L:METAL
AFM,41
1-44
AU REC CH-2(X)
RV201 CH-2 DOLBY LEVEL
IC102(2/2) CH-2 Dolby
TP201
RV211 CH-2 REC LEVEL (OXIDE)
IC211(1/4) CH-2 EQ AMP
IC211(2/4) CH-2 REC AMP
RV212 CH-2 OA FREQ RESPONSE (OXIDE)
LV211 CH-2 REC FREQ RESPONSE (OXIDE)
IC112(2/3)
IC211(3/4) CH-2 EQ AMP
IC211(4/4) CH-2 REC AMP
RV221 CH-2 REC LEVEL (METAL)
RV222 CH-2 OA FREQ RESPONSE (METAL)
LV221 CH-2 REC FREQ RESPONSE (METAL)
IC131(2/2) CH-2 REC DRIVER
R241
C236
TP202
LV231 BIAS TRAP CH-2
Q231
Q232
CV231 CH-2 BIAS
1-24
AUDIO CH-2 R/P
TP11
RY-1(2/2)
CH-2 PB HEAD AMP
Q11
RV11 CH-2 HEAD DUMPER
1-26
FL-55P
IC401(1/2) CH-2 PB EQ
RV402 CH-2 PB EQ(OXIDE)
Q403,404 METAL EQ SW
RV401 CH-2 PB EQ(METAL)
RV403 CH-2 PB LEVEL
IC302(2/3)
Q402
Q1,Q2 PB MUTE DRIVER
Q3,Q4 PB MUTE DRIVER
1-28
RELAY DRIVER
Q16,17
IC1
SY,26 1-6 L:RESET
SV,23 1-5 SYS S0
SV,22 1-4 SYS SCK
SY,19 1-3 H;AUDIO STB
SET
DATA
CLK
STB
P6 H;NR ON
P5 L;REC ON
P4 H;PB
P8 H;REC
P7 H;MUTE
P12 L;OSC ON
PLAY
REW
FF
1-10
1-9
1-8
59-10
59-9
59-8
1-12 PLAY LAMP
1-13 REW LAMP
1-14 FF LAMP
P3
P2
P1
P10
P11
KY-124
Q8,Q11 TAPE MODE SWITCH
Q9,Q10 BIAS OSC CONTROLLER
Q12,Q13 ERASE OSC CONTROLLER
Q18,IC2 +10V REGULATOR
RV2 BIAS SUPPLY Y VOLTAGE
Q14,Q15,CT1 BIAS OSCILLATOR
REC BIAS
Q401
1-10 UNREG 12V
1-35 H:BIAS OFF FOR SERVICE (H=+5VDC,L=0V)
MB-317P


IC111(2/4)
CH-1 REC AMP
IC111(4/4)
CH-1 REC AMP
11 FREQ SE E)
RV113 CH-1 REC PHASE (OXIDE)
V121 EC FREQ ONSE TAL)
RV123 CH-1 REC PHASE (METAL)
OXIDE
METAL
IC112(1/3)
X0
X1
XCH5
2
1
10
IC131(1/2)
CH-1 REC DRIVER
R141
C136
TP102
LV131 BIAS TRAP CH-1
Q131
Q132
CV131 CH-1 BIAS
1-32
+5V
IC112(3/3)
13
11
14
12
-5V
H:METAL
IC211(2/4)
CH-2 REC AMP
IC211(4/4)
CH-2 REC AMP
LV211 REC FREQ SPONSE XIDE)
LV221 REC FREQ SPONSE ETAL)
IC112(2/3)
5
9
4
3
IC131(2/2)
CH-2 REC DRIVER
R241
C236
TP202
LV231 BIAS TRAP CH-2
Q231
Q232
CV231 CH-2 BIAS
1-24
Q1,Q2
PB MUTE DRIVER
Q3,Q4
PB MUTE DRIVER
AUDIO CH-1 R/P
TP1
RY-1(1/2)
P
R
Q1
RV1 CH-1 HEAD DUMPER
CH-1 PB HEAD AMP
1-30
Q405
EQ SW DRIVER
L:METAL
AUDIO CH-2 R/P
TP11
RY-1(2/2)
Q11
RV11 CH-2 HEAD DUMPER
CH-2 PB HEAD AMP
1-26
FL-55P
1-28
RELAY DRIVER
Q16,17
Q18,IC2
+10V REGULATOR
RV2 BIAS SUPPLY Y VOLTAGE
Q14,Q15,CT1
BIAS OSCILLATOR
REC BIAS
IC301(1/2)
CH-1 PB EQ
CH-1 PB EQ(OXIDE)
Q303,304 METAL EQ SW
RV301 CH-1 PB EQ(METAL)
Q301
RV303 CH-1 PB LEVEL
IC302(1/3)
12
13
11
14
Q302
IC301(2/2)
CH-1 PB AMP
TP105
AU PB CH-1(X)
1-18
506-1
IF,2-7
21-A2
TO PB ADAPTER
IC401(1/2)
CH-2 PB EQ
RV402 CH-2 PB EQ(OXIDE)
Q403,404 METAL EQ SW
RV401 CH-2 PB EQ(METAL)
Q401
RV403 CH-2 PB LEVEL
IC302(2/3)
5
3
9
4
Q402
IC401(2/2)
CH-2 PB AMP
TP205
AU PB CH-2(X)
1-21
21-A3
TO PB ADAPTER
FE OSC Vcc
FE OSC Vee
1-7
1-8
43-9
43-10
1-9
1-10
CP1
Q1,Q2
ERASE OSC
6
5
FULL ERASE HEAD
FE-4
AU-97P
MB-317P

AU-97P
AUDIO BLOCK

BVW-400AP (EK) ;№40001-

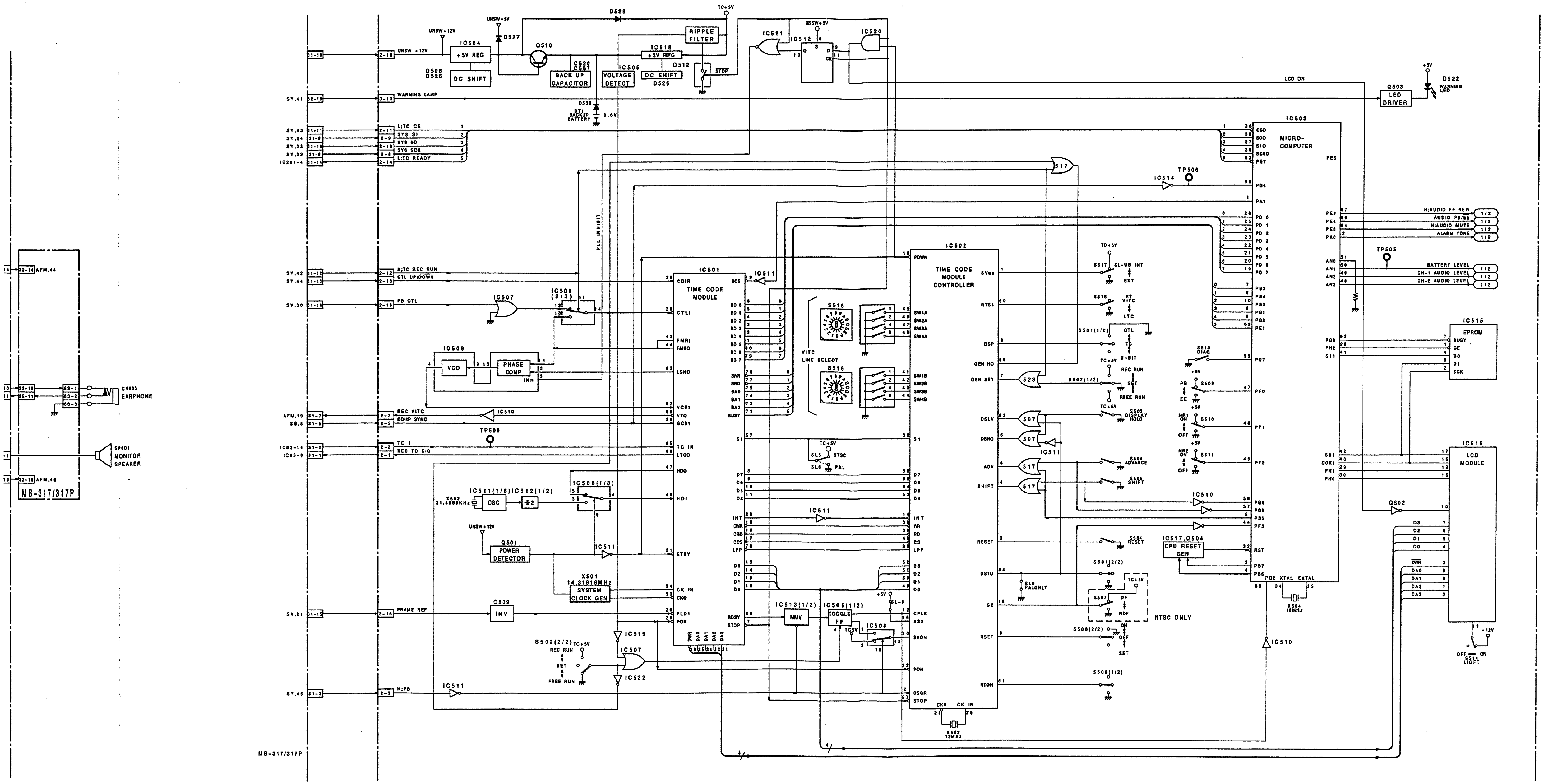
TIME CODE,LEVEL CONTROL,MONITOR,SW,I


AUDIO LEVEL CONTROL
VIEWFINDER
AU LEVEL CONT
CAMERA MIC(X)
CAMERA MIC(Y)
IC151
BALANCE AMP
Q151
RIPPLE FILTER
+48V
MB-317/317P
CN011 MIC IN
POWER SWITCH
S1
CN006 CH-1 IN
CH-1 MIC/LINE IN (X)
CH-1 MIC/LINE IN (Y)
MB,60-1
S1
UC/EK ONLY
CN007 CH-2 IN
CH-2 MIC/LINE IN (X)
CH-2 MIC/LINE IN (Y)
S2
UC/EK ONLY
PS-162
RIPPLE FILTER
Q101
Q201
S101 CAM MIC LINE
S201 CAM MIC LINE
IC101(1/2)
C101(2/2)
IC201(1/2)
C201(2/2)
AMP
ATT
IC102(1/2)
IC202(1/2)
BALANCE AMP
RV101 CH-1 AUDIO LEVEL
RV201 CH-2 AUDIO LEVEL
MAN
AUTO
S102
S202
+5V
IC701(1/2)
PHOTO-COUPLER DRIVER
Q701
Q102
Q202
GAIN CONT
PH1
IC703
+3V REG
RV701 AGC LEVEL
RV702 BATTERY LEVEL
Q702,IC702(1/2)
OFFSET VOLTAGE GENERATOR
IC701(1/2)
LEVEL SHIFTER &AMP
BATTERY LEVEL
TP101
TP201
IC102(2/2)
IC202(2/2)
LINE AMP
Q107
Q207
BUFFER
TIME CONSTANT
Q105
Q104
Q205
Q204
PEAK DET
S103 LIM OFF
S203 LIM OFF
IC103
IC203
FULL-WAVE RECTIFIER
Q106
Q103
Q206
Q203
IC301(2/3)
IC301(3/3)
IC401(2/3)
IC401(3/3)
RV302 CH-1 METER LEVEL
RV402 CH-2 METER LEVEL
IC303
IC403
PEAK DETECTOR
TP301
TP401
AUDIO CH-1 OUT
AUDIO CH-2 OUT
CH-1 AUDIO LEVEL
CH-2 AUDIO LEVEL
2/2
IC702(2/2)
AMP
MONITOR
S701
CH-1 MIX CH-2
ALARM TONE
MONITOR LEVEL
ALARM LEVEL
VR-70
IC1
MONITOR AMP
MONITOR OUT
AFM,44
AFM,46
CN003 EARPHONE
SP601 MONITOR SPEAKER
MB-317/317P
H:AUDIO MUTE
AUDIO EE/PB
AU CONFI PB CH-1
AU CONFI PB CH-2
IC1(1/2)
CH-1 CONFI AMP
IC1(2/2)
CH-2 CONFI AMP
TB-5
MB-317/317P
TP302
TP402
AU CONFI CH-1
AU CONFI CH-2
IC301 (1/3)
IC401 (1/3)
H:FF/REW
IC302(1/2)
IC302(2/2)
CH-1 CONFI AMP
CH-2 CONFI AMP
RV301 CH-1 CONFI LEVEL
RV401 CH-2 CONFI LEVEL

TC-48A/48AP(1/2)

AUDIO BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

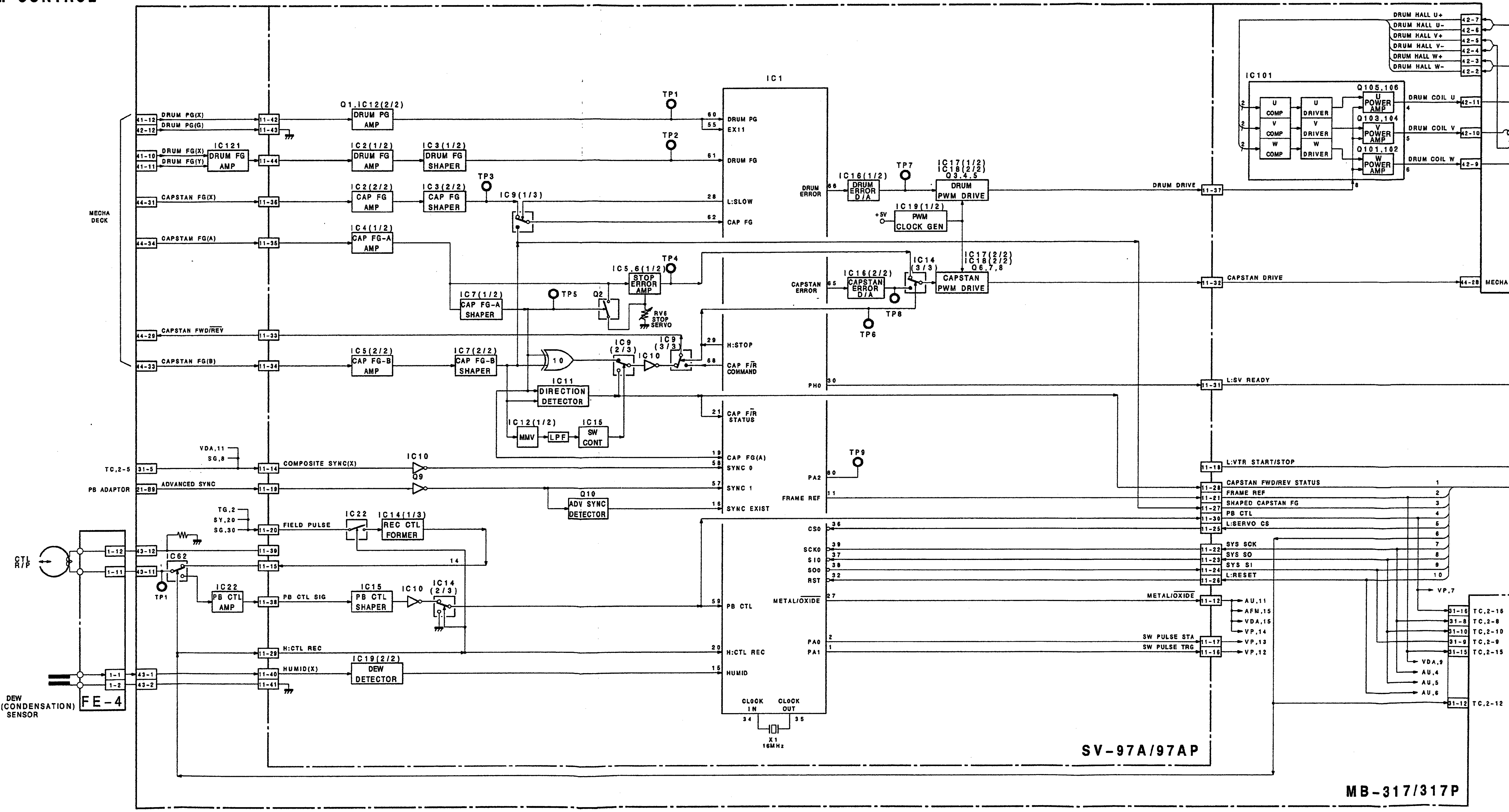

IC504 +5V REG
DC SHIFT
D508 D526
Q510
D527
D528
TC+5V
UNSW+12V
UNSW+5V
C526 C567
BACK UP CAPACITOR
IC505 VOLTAGE DETECT
IC518 +3V REG
Q512
DC SHIFT
D525
RIPPLE FILTER
STOP
IC521
IC512
IC520
D530
BT1 BACKUP BATTERY
3.6V
WARNING LAMP
L;TC CS
SYS SI
SYS SO
SYS SCK
L;TC READY
LCD ON
Q503 LED DRIVER
D522 WARNING LED
IC503 MICRO-COMPUTER
PLL INHIBIT
IC517
IC514
TP506
H;AUDIO FF REW
AUDIO PB/EE
H;AUDIO MUTE
ALARM TONE
TP505
BATTERY LEVEL
CH-1 AUDIO LEVEL
CH-2 AUDIO LEVEL
IC515 EPROM
IC516 LCD MODULE
H;TC REC RUN
CTL UP/DOWN
PB CTL
IC507
IC508 (2/3)
IC501 TIME CODE MODULE
IC511
IC502 TIME CODE MODULE CONTROLLER
S515
S516
VITC LINE SELECT
IC509
VCO
PHASE COMP
INH
REC VITC
COMP SYNC
IC510
TP509
TC I
REC TC SIG
SL5 NTSC
SL6 PAL
IC511(1/6) IC512(1/2)
X503 31.4685KHz
OSC
÷2
IC508(1/3)
Q501 POWER DETECTOR
X501 14.31818MHz SYSTEM CLOCK GEN
FRAME REF
Q509 INV
IC519
IC507
IC522
S502(2/2)
REC RUN
SET
FREE RUN
H;PB
IC513(1/2) MMV
IC506(1/2) TOGGLE FF
IC508
X502 12MHz
S517 SL-UB INT EXT
S518 RT VITC LTC
S501(1/2) CTL TC U-BIT
S502(1/2) REC RUN SET FREE RUN
IC523
S503 DISPLAY HOLD
S504 ADVANCE
S505 SHIFT
S506 RESET
SL8 PALONLY
S501(2/2)
S507 DF NDF
NTSC ONLY
S508(2/2) ON OFF SET
S508(1/2)
S513 DIAG
S509 PB EE
S510 NR1 ON OFF
S511 NR2 ON OFF
IC517,Q504 CPU RESET GEN
X504 16MHz
Q502
S514 LIGHT OFF ON
CN003 EARPHONE
SP901 MONITOR SPEAKER
MB-317/317P
SY,41
SY,43
SY,24
SY,23
SY,22
IC201-4
SY,42
SY,44
SV,30
AFM,19
SG,6
IC82-14
IC83-6
SV,21
SY,45
AFM,44
AFM,46

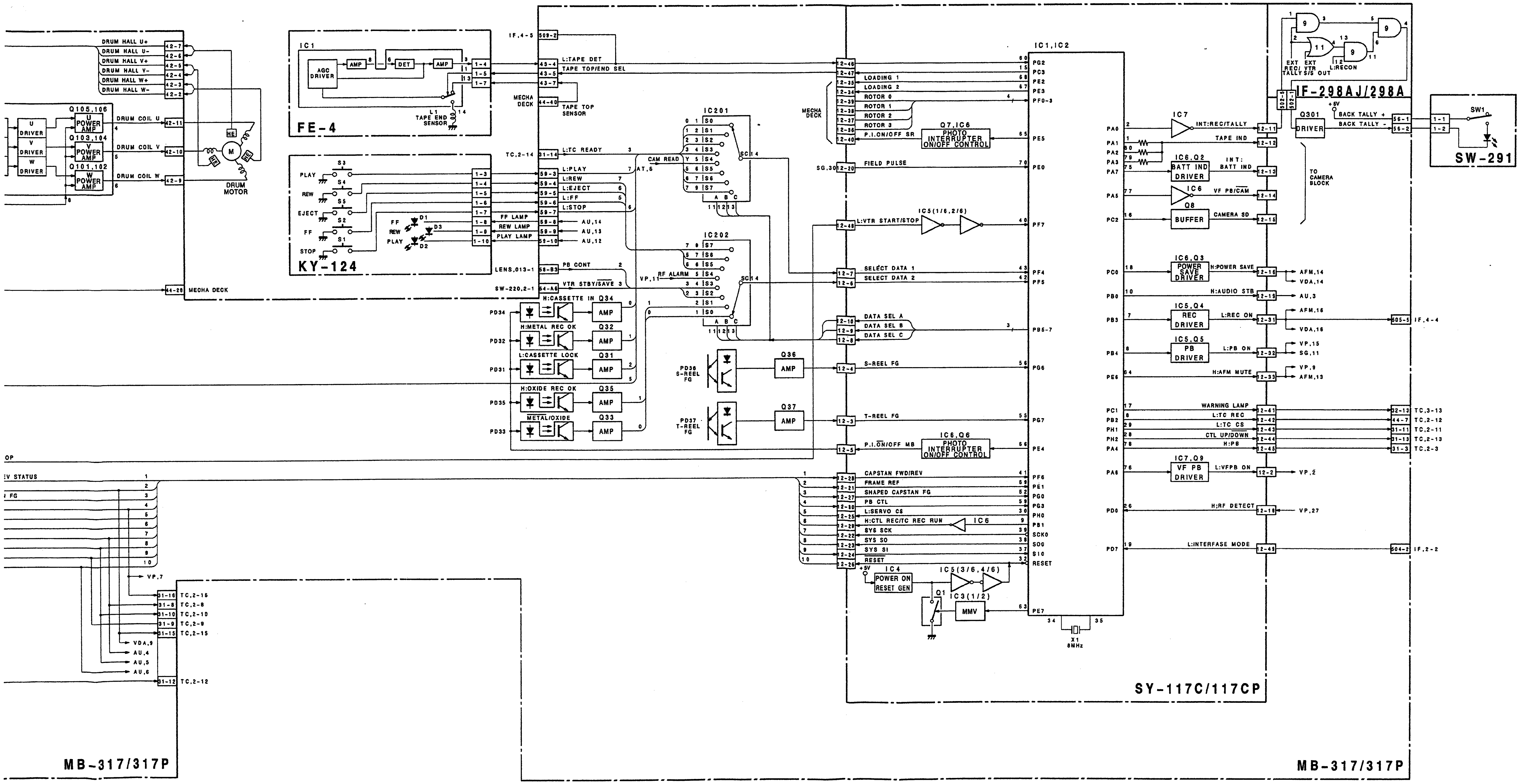
TC-48A/48AP(2/2)

TIME CODE BLOCK

BVW-400A (J) ;♯30001-
BVW-400A (UC) ;♯10001-
BVW-400AP (EK) ;♯40001-

SERVO SYSTEM
SYSTEM CONTROL

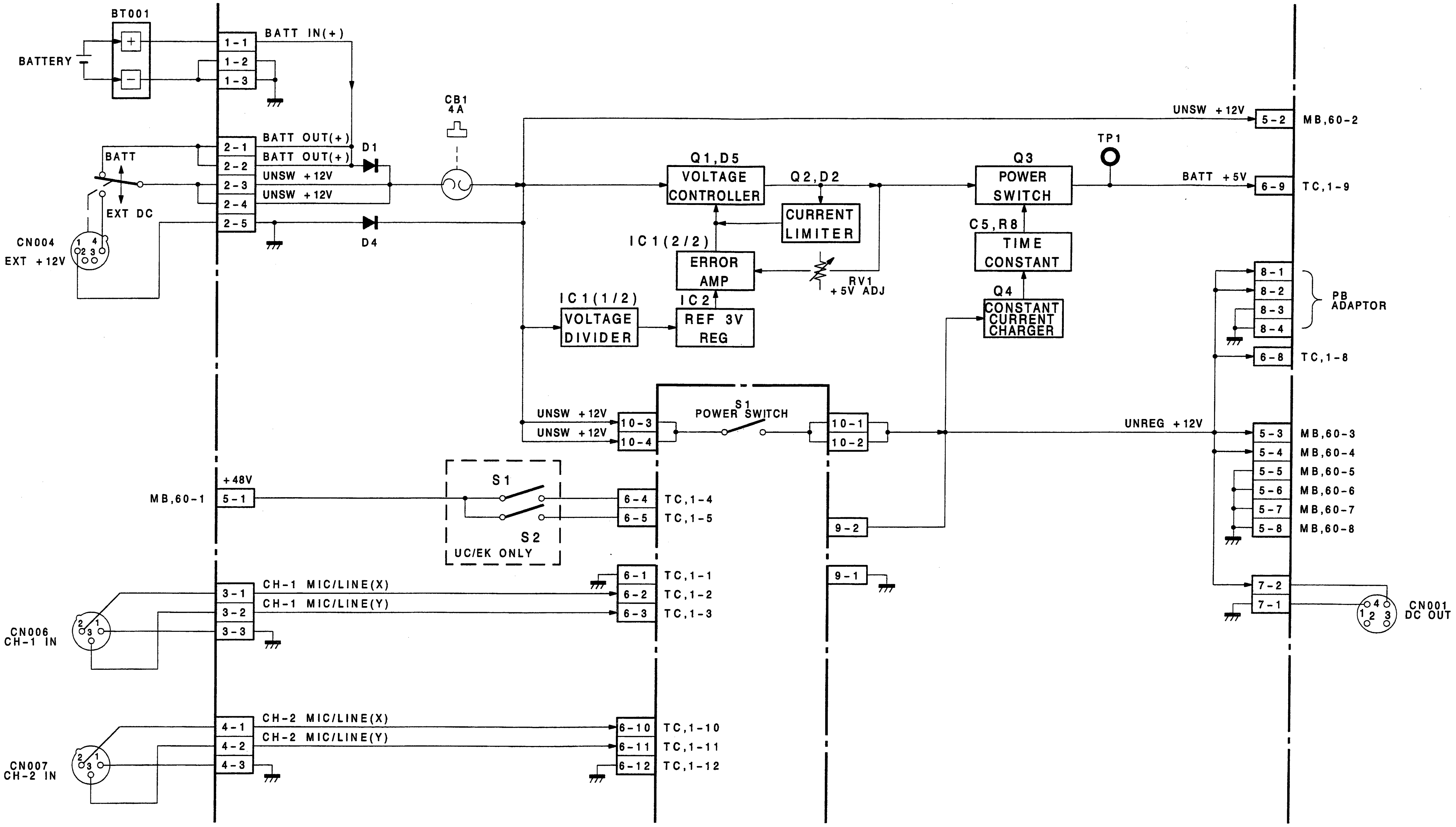

MECHA DECK
DRUM PG(X)
DRUM PG(G)
DRUM FG(X)
DRUM FG(Y)
IC121 DRUM FG AMP
CAPSTAN FG(X)
CAPSTAN FG(A)
CAPSTAN FWD/REV
CAPSTAN FG(B)
Q1,IC12(2/2) DRUM PG AMP
IC2(1/2) DRUM FG AMP
IC3(1/2) DRUM FG SHAPER
IC2(2/2) CAP FG AMP
IC3(2/2) CAP FG SHAPER
IC4(1/2) CAP FG-A AMP
IC7(1/2) CAP FG-A SHAPER
IC5(2/2) CAP FG-B AMP
IC7(2/2) CAP FG-B SHAPER
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
IC9(1/3)
IC5,6(1/2) STOP ERROR AMP
Q2
RV6 STOP SERVO
IC9 (2/3)
IC9 (3/3)
IC10
IC11 DIRECTION DETECTOR
IC12(1/2) MMV
LPF
IC15 SW CONT
VDA,11
SG,8
TC,2-5
PB ADAPTOR
COMPOSITE SYNC(X)
ADVANCED SYNC
Q9
Q10 ADV SYNC DETECTOR
TG,2
SY,20
SG,30
FIELD PULSE
IC22
IC14(1/3) REC CTL FORMER
CTL R/P
IC62
IC22 PB CTL AMP
PB CTL SIG
IC15 PB CTL SHAPER
IC14 (2/3)
H:CTL REC
HUMID(X)
IC19(2/2) DEW DETECTOR
DEW (CONDENSATION) SENSOR
FE-4
IC1
DRUM PG
EXI1
DRUM FG
L:SLOW
CAP FG
H:STOP
CAP F/R COMMAND
CAP F/R STATUS
CAP FG(A)
SYNC 0
SYNC 1
SYNC EXIST
PB CTL
H:CTL REC
HUMID
CLOCK IN
CLOCK OUT
X1 16MHz
DRUM ERROR
CAPSTAN ERROR
PH0
PA2
FRAME REF
CS0
SCK0
SI0
SO0
RST
METAL/OXIDE
PA0
PA1
IC16(1/2) DRUM ERROR D/A
IC17(1/2) IC18(2/2) Q3,4,5 DRUM PWM DRIVE
IC19(1/2) PWM CLOCK GEN
+5V
IC16(2/2) CAPSTAN ERROR D/A
IC14 (3/3)
IC17(2/2) IC18(2/2) Q6,7,8 CAPSTAN PWM DRIVE
DRUM DRIVE
CAPSTAN DRIVE
L:SV READY
L:VTR START/STOP
CAPSTAN FWD/REV STATUS
FRAME REF
SHAPED CAPSTAN FG
PB CTL
L:SERVO CS
SYS SCK
SYS SO
SYS SI
L:RESET
METAL/OXIDE
SW PULSE STA
SW PULSE TRG
AU,11
AFM,15
VDA,15
VP,14
VP,13
VP,12
VP,7
TC,2-16
TC,2-8
TC,2-10
TC,2-9
TC,2-15
VDA,9
AU,4
AU,5
AU,6
TC,2-12
DRUM HALL U+
DRUM HALL U-
DRUM HALL V+
DRUM HALL V-
DRUM HALL W+
DRUM HALL W-
IC101
U COMP
V COMP
W COMP
U DRIVER
V DRIVER
W DRIVER
Q105,106 U POWER AMP
Q103,104 V POWER AMP
Q101,102 W POWER AMP
DRUM COIL U
DRUM COIL V
DRUM COIL W
MECHA
SV-97A/97AP
MB-317/317P


DRUM HALL U+
DRUM HALL U-
DRUM HALL V+
DRUM HALL V-
DRUM HALL W+
DRUM HALL W-
U DRIVER
V DRIVER
W DRIVER
Q105,106 U POWER AMP
Q103,104 V POWER AMP
Q101,102 W POWER AMP
DRUM COIL U
DRUM COIL V
DRUM COIL W
DRUM MOTOR
MECHA DECK
IC1
AGC DRIVER
AMP
DET
L1 TAPE END SENSOR
FE-4
IF,4-5
L:TAPE DET
TAPE TOP/END SEL
MECHA DECK
TAPE TOP SENSOR
TC,2-14
L:TC READY
PLAY
REW
EJECT
FF
STOP
S1
S2
S3
S4
S5
D1
D2
D3
L:PLAY
L:REW
L:EJECT
L:FF
L:STOP
FF LAMP
REW LAMP
PLAY LAMP
AU,14
AU,13
AU,12
KY-124
LENS,013-1
PB CONT
SW-220,2-1
VTR STBY/SAVE
IC201
IC202
CAM READ
AT,6
RF ALARM
VP,11
H:CASSETTE IN Q34
H:METAL REC OK Q32
L:CASSETTE LOCK Q31
H:OXIDE REC OK Q35
METAL/OXIDE Q33
PD34
PD32
PD31
PD35
PD33
AMP
PD36 S-REEL FG
PD37 T-REEL FG
Q36
Q37
LOADING 1
LOADING 2
ROTOR 0
ROTOR 1
ROTOR 2
ROTOR 3
P.I.ON/OFF SR
Q7,IC6 PHOTO INTERRUPTER ON/OFF CONTROL
SG,30
FIELD PULSE
IC5(1/6,2/6)
L:VTR START/STOP
SELECT DATA 1
SELECT DATA 2
DATA SEL A
DATA SEL B
DATA SEL C
S-REEL FG
T-REEL FG
IC6,Q6 PHOTO INTERRUPTER ON/OFF CONTROL
P.I.ON/OFF MB
CAPSTAN FWD/REV
FRAME REF
SHAPED CAPSTAN FG
PB CTL
L:SERVO CS
H:CTL REC/TC REC RUN
IC6
SYS SCK
SYS SO
SYS SI
RESET
IC4 POWER ON RESET GEN
IC5(3/6,4/6)
Q1
IC3(1/2) MMV
X1 8MHz
IC1,IC2
PG2
PC3
PE2
PE3
PF0-3
PE5
PE0
PF7
PF4
PF5
PB5-7
PG6
PG7
PE4
PF6
PE1
PG0
PG3
PH0
PB1
SCK0
SO0
SI0
RESET
PE7
PA0
PA1
PA2
PA3
PA7
PA5
PC2
PC0
PB0
PB3
PB4
PE6
PC1
PB2
PH1
PH2
PA4
PA6
PD0
PD7
IC7
INT:REC/TALLY
TAPE IND
IC6,Q2 BATT IND DRIVER
INT: BATT IND
IC6
VF PB/CAM
Q8 BUFFER
CAMERA SD
IC6,Q3 POWER SAVE DRIVER
H:POWER SAVE
H:AUDIO STB
IC5,Q4 REC DRIVER
L:REC ON
IC5,Q5 PB DRIVER
L:PB ON
H:AFM MUTE
WARNING LAMP
L:TC REC
L:TC CS
CTL UP/DOWN
H:PB
IC7,Q9 VF PB DRIVER
L:VFPB ON
H:RF DETECT
L:INTERFASE MODE
TO CAMERA BLOCK
AFM,14
VDA,14
AU,3
AFM,16
VDA,16
VP,15
SG,11
VP,9
AFM,13
VP,2
VP,27
IF,4-4
TC,3-13
TC,2-12
TC,2-11
TC,2-13
TC,2-3
IF,2-2
SY-117C/117CP
EXT REC/TALLY
EXT VTR S/S OUT
L:RECON
IF-298AJ/298A
Q301 DRIVER
+5V
BACK TALLY +
BACK TALLY -
SW1
SW-291
EV STATUS
FG
VP,7
TC,2-15
TC,2-8
TC,2-10
TC,2-9
TC,2-15
VDA,9
AU,4
AU,5
AU,6
TC,2-12
MB-317/317P
MB-317/317P

SYSCON/SERVO BLOCK

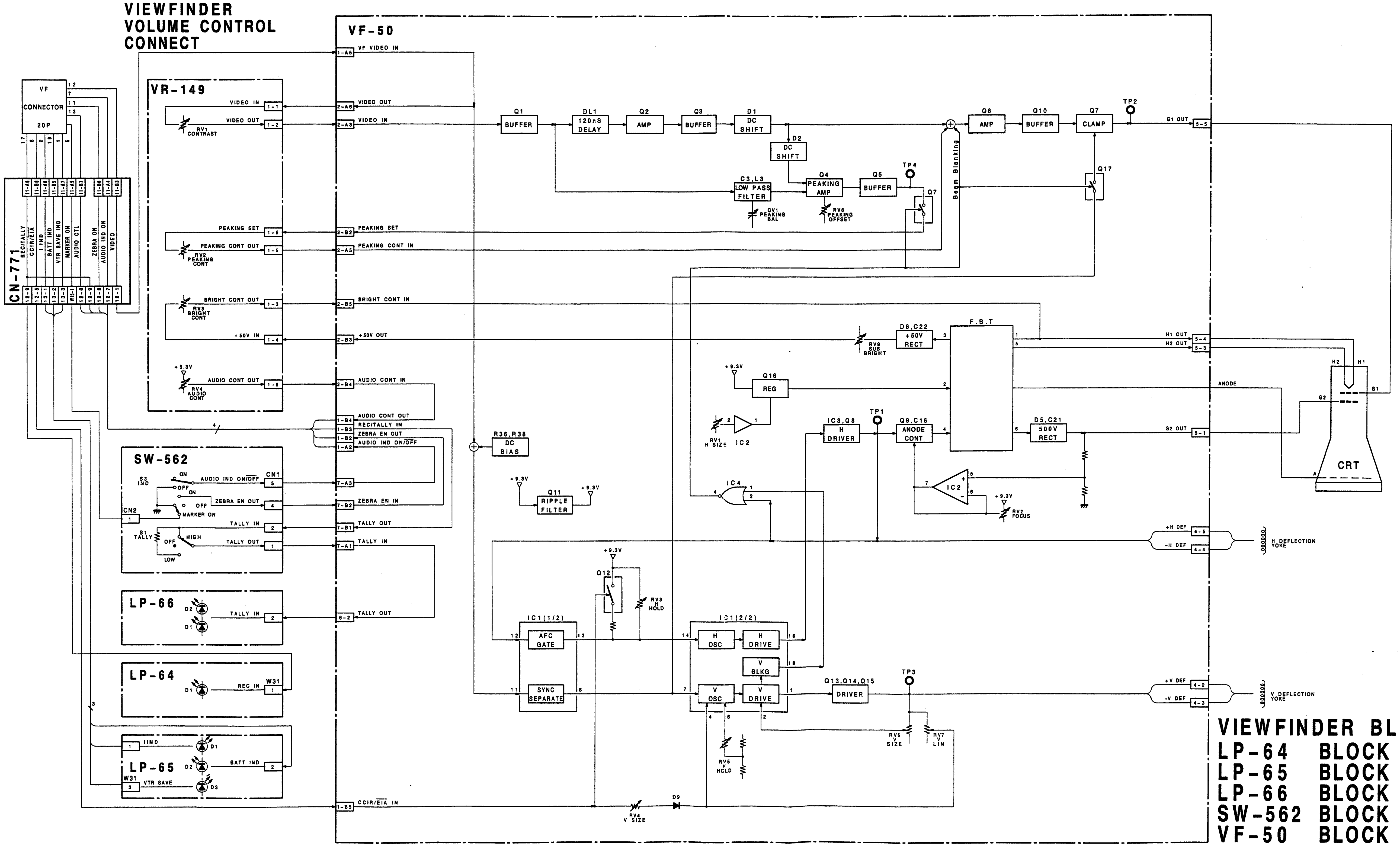
BVW-400A (J) ;♯30001-
BVW-400A (UC) ;♯10001-
BVW-400AP (EK) ;♯40001-

POWER DISTRIBUTOR


BT001
BATTERY
BATT IN(+)
1-1
1-2
1-3
CB1
4A
BATT
EXT DC
CN004
EXT +12V
2-1
2-2
2-3
2-4
2-5
BATT OUT(+)
BATT OUT(+)
UNSW +12V
UNSW +12V
D1
D4
UNSW +12V
5-2
MB,60-2
Q1,D5
VOLTAGE CONTROLLER
Q2,D2
CURRENT LIMITER
IC1(2/2)
ERROR AMP
RV1
+5V ADJ
IC1(1/2)
VOLTAGE DIVIDER
IC2
REF 3V REG
Q3
POWER SWITCH
TP1
BATT +5V
6-9
TC,1-9
C5,R8
TIME CONSTANT
Q4
CONSTANT CURRENT CHARGER
8-1
8-2
8-3
8-4
PB ADAPTOR
6-8
TC,1-8
UNSW +12V
UNSW +12V
10-3
10-4
S1
POWER SWITCH
10-1
10-2
UNREG +12V
5-3
MB,60-3
5-4
MB,60-4
5-5
MB,60-5
5-6
MB,60-6
5-7
MB,60-7
5-8
MB,60-8
+48V
MB,60-1
5-1
S1
S2
UC/EK ONLY
6-4
TC,1-4
6-5
TC,1-5
9-2
9-1
7-2
7-1
CN001
DC OUT
CN006
CH-1 IN
3-1
3-2
3-3
CH-1 MIC/LINE(X)
CH-1 MIC/LINE(Y)
6-1
TC,1-1
6-2
TC,1-2
6-3
TC,1-3
CN007
CH-2 IN
4-1
4-2
4-3
CH-2 MIC/LINE(X)
CH-2 MIC/LINE(Y)
6-10
TC,1-10
6-11
TC,1-11
6-12
TC,1-12

PS-162(J)/162
POWER SUPPLY BLOCK
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

REC LED
BATT/TALLY,VTR SAVE LED
FRONT TALLY LED
SWITCH BOARD
VIEWFINDER
VOLUME CONTROL
CONNECT


VF CONNECTOR 20P
12
7
11
13
17
6
2
16
1
5
CN-771
REC/TALLY
CCIR/EIA
I IND
BATT IND
VTR SAVE IND
MARKER ON
AUDIO CTL
ZEBRA ON
AUDIO IND ON
VIDEO
11-A6
11-B6
11-A8
11-B5
11-A7
11-A5
11-B7
11-B8
11-A4
11-B3
12-9
12-5
13-1
13-2
13-3
W15-1
12-6
12-9
12-8
12-7
12-1
VR-149
VIDEO IN
1-1
VIDEO OUT
1-2
RV1 CONTRAST
PEAKING SET
1-6
PEAKING CONT OUT
1-5
RV2 PEAKING CONT
BRIGHT CONT OUT
1-3
RV3 BRIGHT CONT
+50V IN
1-4
+9.3V
AUDIO CONT OUT
1-8
RV4 AUDIO CONT
4
SW-562
S3 IND
ON
OFF
ON
AUDIO IND ON/OFF
CN1
5
OFF
ZEBRA EN OUT
4
MARKER ON
CN2
1
TALLY IN
2
S1 TALLY
OFF
HIGH
LOW
TALLY OUT
1
LP-66
D2
D1
TALLY IN
2
LP-64
D1
REC IN
W31
1
3
LP-65
IIND
1
D1
D2
BATT IND
2
W31
VTR SAVE
3
D3
VF-50
1-A5
VF VIDEO IN
2-A6
VIDEO OUT
2-A3
VIDEO IN
2-B2
PEAKING SET
2-A5
PEAKING CONT IN
2-B5
BRIGHT CONT IN
2-B3
+50V OUT
2-B4
AUDIO CONT IN
1-B4
AUDIO CONT OUT
1-B3
REC/TALLY IN
1-B2
ZEBRA EN OUT
1-A2
AUDIO IND ON/OFF
7-A3
7-B2
ZEBRA EN IN
7-B1
TALLY OUT
7-A1
TALLY IN
6-2
TALLY OUT
1-B5
CCIR/EIA IN
Q1
BUFFER
DL1
120nS DELAY
Q2
AMP
Q3
BUFFER
D1
DC SHIFT
D2
DC SHIFT
C3,L3
LOW PASS FILTER
CV1 PEAKING BAL
Q4
PEAKING AMP
RV8 PEAKING OFFSET
Q5
BUFFER
TP4
Q7
Beam Blanking
Q6
AMP
Q10
BUFFER
Q7
CLAMP
TP2
Q17
G1 OUT
5-5
R36,R38
DC BIAS
+9.3V
Q11
RIPPLE FILTER
+9.3V
D6,C22
+50V RECT
RV9 SUB BRIGHT
F.B.T
1
5
3
2
4
6
H1 OUT
5-4
H2 OUT
5-3
+9.3V
Q16
REG
RV1 H SIZE
IC2
TP1
IC3,Q8
H DRIVER
Q9,C16
ANODE CONT
D5,C21
500V RECT
G2 OUT
5-1
IC2
7
5
6
+9.3V
RV2 FOCUS
IC4
ANODE
H2
H1
G1
G2
A
CRT
+H DEF
4-5
-H DEF
4-4
H DEFLECTION YOKE
+9.3V
Q12
RV3 H HOLD
IC1(1/2)
12
AFC GATE
13
11
SYNC SEPARATE
8
IC1(2/2)
14
H OSC
H DRIVE
16
V BLKG
18
7
V OSC
V DRIVE
1
4
6
2
RV5 V HOLD
Q13,Q14,Q15
DRIVER
TP3
RV6 V SIZE
RV7 V LIN
+V DEF
4-2
-V DEF
4-3
V DEFLECTION YOKE
RV4 V SIZE
D9

VIEWFINDER BLOCK
LP-64 BLOCK
LP-65 BLOCK
LP-66 BLOCK
SW-562 BLOCK
VF-50 BLOCK
VR-149 BLOCK
CN-771 BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

SECTION 10

SEMICONDUCTOR ELECTRODES

ここに記載されているIC、トランジスタ、ダイオードは、それぞれの機能を等価的に表わしたものです。したがって互換性を表わすものではありません。（互換性のない型名が併記されている事もあります。）部品の交換をする時は、SPARE PARTSの章を参照して下さい。

ICs, transistors and diodes whoses functions are equivalent are described here. Therefore, incompatible device names may be described together. For parts replacement, refer to the Spare Parts section in this manual.

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AD707JR	10-3
AM27C64-200DC	10-3
AN6391NS	10-3
AN6701S	10-3
AT27C256R-15RC	10-4
BA6229	10-4
BX1040	10-4
BX1179A	10-4
BX1356	10-4
CX20030	10-5
CX20099	10-4
CX22017	10-6
CX518	10-5
CX7968A	10-6
CX7969	10-7
CX7991	10-7
CXA1065M	10-8
CXA1127M	10-8
CXD1128Q	10-14
CXD1132Q	10-9
CXD1216M	10-14
CXD1217M	10-14
CXD8042Q	10-15
CXD8154AM	10-15
CXD8154BM	10-15
CXK1011P	10-16
CXP80116	10-16
HA11423MP	10-17
HD14053BFP	10-17
HD63P05Y0	10-18
LA7205M	10-18
LM2903M	10-19
LM2904M	10-19
LM35DZ	10-19

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M5237L	10-19
MC14011BF	10-19
MC14013BF	10-19
MC14046BF	10-19
MC14051BF	10-20
MC14069UBF	10-20
MC14070BF	10-20
MC14071BF	10-20
MC14081BF	10-20
MC14538BF	10-20
MC74HC4049F	10-20
MC74HC4538AF	10-21
MN1237AD	10-21
NJM062M	10-21
NJM064M	10-21
NJM386M	10-21
NJM4559M	10-21
RC1496M	10-21
RC2041MD	10-22
RC2043MD	10-22
RC4556MA	10-22
RC4558M	10-22
S-8054HN-CB	10-22
S-81230AG-RB	10-22
SBX1588	10-22
SN74HC00ANS	10-22
SN74HC14ANS	10-22
SN74HC244ANS	10-22
SN74LS123NS	10-22
SN74HCU04ANS	10-23
TC4030BFHB	10-22
TC4049BF	10-23
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IC	PAGE
TC40H004F	10-23
TC40H241F	10-23
TC4512BF	10-23
TC4S01F	10-23
TC4S11F	10-23
TC4S30F	10-23
TC4S69F	10-23
TC4S71F	10-24
TC4S81F	10-24
TC4SU69F	10-23
TC50H001F	10-24
TC74HC4053AF	10-23
TC74HC4538AF	10-21
TC7S08F	10-24
TL062CPS	10-21
TL064CNS	10-21
TL072CPS	10-24
TL7700CPS	10-24
UPC1663G	10-24
UPC311G2	10-24
UPC358G2	10-24
UPC4558G2	10-22
UPC4560G2	10-24
UPC4572G2	10-25
UPC78N??H	10-25
UPC812G2	10-25

等価回路はICメーカーのData Bookに従いました。

The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

Transistor PAGE

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2SA1226 10-26
2SA1462 10-26
2SA1463 10-26
2SA1611 10-26
2SB624 10-26
2SB798 10-26
2SB907 10-26
2SC1623 10-26
2SC2713 10-26
2SC2757 10-26
2SC3360 10-26
2SC4177 10-26
2SC4178 10-26
2SC4213 10-26
2SD1221 10-26
2SD1615A 10-26
2SD1623 10-26
2SD596 10-26
2SK209 10-26
2SK508 10-26
2SK612 10-26
2SK620 10-26
2SK94 10-26

DTA114YK 10-26
DTA144EU 10-26
DTC114EU 10-26
DTC114YU 10-26
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1SS119 10-27
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CL-150D-CD 10-27
CL-150UR-CD 10-27

DA204U 10-27
DAN202U 10-27
DAP202U 10-27

E10QS04 10-27
EBR3402S 10-27
ERA81-004 10-27

GL-5LR40 10-27
GL-1HD11 10-27
GP-1S54 10-27
GP-2S07B 10-27
GP-2S09 10-27

HSM88AS 10-27
HSM88WK 10-27
HZ?ALL 10-27
HZ?B?L 10-27
HZ?BLL 10-27
HZS?ALL 10-27
HZS??JB? 10-27
HZS??L 10-27

RD??ESB? 10-27
RD??FB? 10-27
RD??M 10-27

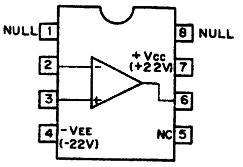
SB01-05CP 10-27

U05E 10-27

V09C 10-27
V11? 10-27

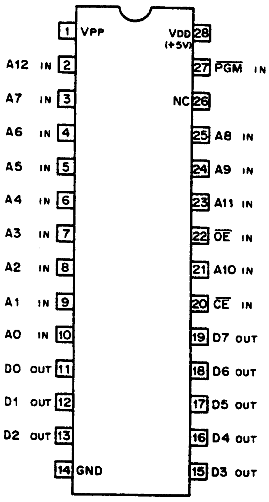
AD707JR (ANALOG DEVICES) FLAT PACKAGE

OPERATIONAL AMPLIFIER
- TOP VIEW -

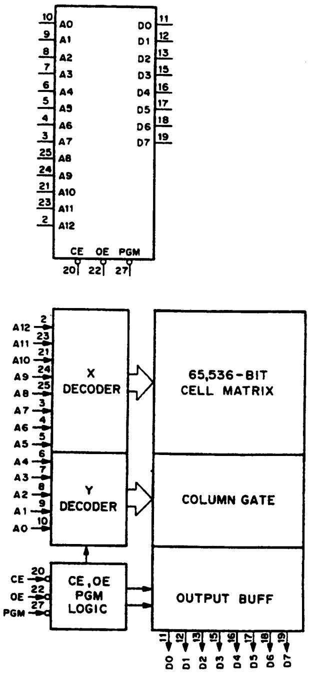

NULL 1
2
3
4 -VEE (-22V)
8 NULL
+Vcc (+22V) 7
6
NC 5

AM27C64-200DC (AMD) (ACCESS TIME = 200nS)

C-MOS 64K (8Kx8)-BIT UV ERASABLE PROM WITH 3-STATE OUTPUT
- TOP VIEW -


1 VPP
A12 IN 2
A7 IN 3
A6 IN 4
A5 IN 5
A4 IN 6
A3 IN 7
A2 IN 8
A1 IN 9
A0 IN 10
D0 OUT 11
D1 OUT 12
D2 OUT 13
14 GND
VDD (+5V) 28
27 PGM IN
NC 26
25 A8 IN
24 A9 IN
23 A11 IN
22 OE IN
21 A10 IN
20 CE IN
19 D7 OUT
18 D6 OUT
17 D5 OUT
16 D4 OUT
15 D3 OUT

A0 – A12 : ADDRESS INPUTS
CE : CHIP ENABLE INPUT
D0 – D7 : DATA OUTPUTS
OE : OUTPUT ENABLE INPUT
PGM : PROGRAM ENABLE INPUT
VPP : PROGRAM SUPPLY VOLTAGE


A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12
D0 D1 D2 D3 D4 D5 D6 D7
CE OE PGM
20 22 27
X DECODER
Y DECODER
65,536-BIT CELL MATRIX
COLUMN GATE
CE, OE PGM LOGIC
OUTPUT BUFF

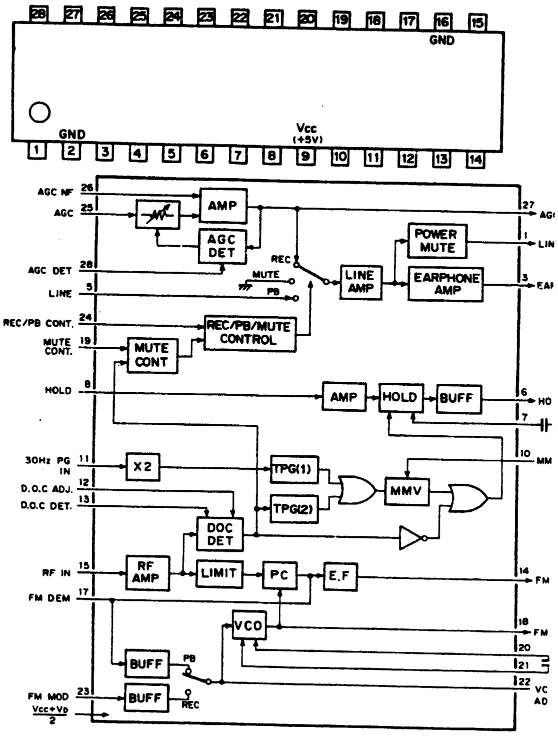
A0	A9	CE	OE	PGM	VPP	Dn	FUNCTION	
X	X	0	0	X	+ 5V	D OUT	READ	
X	X	0	1	X	+ 5V	HI – Z	OUTPUT DISABLE	
X	X	1	X	X	+ 5V	HI – Z	STANDBY	
X	X	0	X	0	+ 12.5V	D IN	PGM	
X	X	0	0	1	+ 12.5V	D OUT	PGM VERIFY	
X	X	1	X	X	+ 12.5V	HI – Z	PGM INH	
0	1	0	0	X	+ 5V	01H	MAKER CODE	* AUTO SELECT
1	1	0	0	X	+ 5V	15H	DEVICE CODE	

* A1 – A8 = A10 – A12 = 0

1 ; HIGH LEVEL
0 ; LOW LEVEL
X ; DON'T CARE
HI-Z ; HI-IMPEDANCE

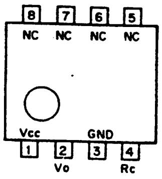
AN6391NS (MATSUSHITA) FLAT PACKAGE

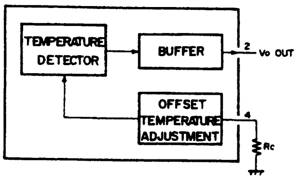
AUDIO FM REC/PB AMP
- TOP VIEW -


28 27 26 25 24 23 22 21 20 19 18 17 16 15
GND
GND
Vcc (+5V)
1 2 3 4 5 6 7 8 9 10 11 12 13 14
AGC NF 26
AGC 25
AGC DET 28
LINE 5
REC/PB CONT. 24
MUTE CONT. 19
HOLD 8
30Hz PG IN 11
D.O.C ADJ. 12
D.O.C DET. 13
RF IN 15
FM DEM 17
FM MOD 23
Vcc+VD/2
AMP
AGC DET
REC
MUTE
PB
LINE AMP
POWER MUTE
EARPHONE AMP
REC/PB/MUTE CONTROL
MUTE CONT
AMP
HOLD
BUFF
X2
TPG(1)
TPG(2)
MMV
DOC DET
RF AMP
LIMIT
PC
E.F
VCO
BUFF
BUFF
PB
REC
27 AG
1 LIN
3 EA
6 HO
7
10 MM
14 FM
18 FM
20
21
22 VC AD

AN6701S (MATSUSHITA) FLAT PACKAGE

TEMPERATURE SENSING
- TOP VIEW -

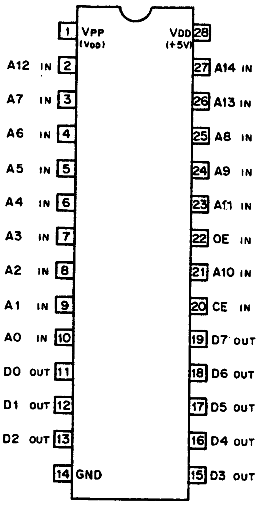

8 7 6 5
NC NC NC NC
Vcc GND
1 2 3 4
Vo Rc

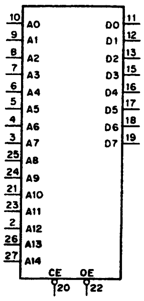

TEMPERATURE DETECTOR
BUFFER
2 Vo OUT
OFFSET TEMPERATURE ADJUSTMENT
4
Rc

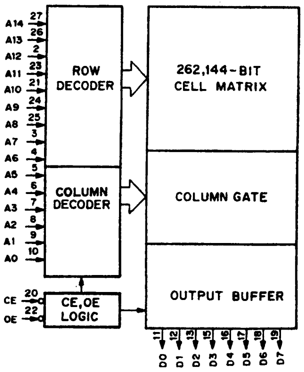
Rc : RESISTOR FOR CALIBRATION

AT27C256R-15RC (ATMEL)

C-MOS 256K (32Kx8)-BIT UV ERASABLE PROM WITH 3-STATE OUTPUTS
- TOP VIEW -


1 VPP (VDD)
VDD (+5V) 28
A12 IN 2
27 A14 IN
A7 IN 3
26 A13 IN
A6 IN 4
25 A8 IN
A5 IN 5
24 A9 IN
A4 IN 6
23 A11 IN
A3 IN 7
22 OE IN
A2 IN 8
21 A10 IN
A1 IN 9
20 CE IN
A0 IN 10
19 D7 OUT
D0 OUT 11
18 D6 OUT
D1 OUT 12
17 D5 OUT
D2 OUT 13
16 D4 OUT
14 GND
15 D3 OUT


10 A0
9 A1
8 A2
7 A3
6 A4
5 A5
4 A6
3 A7
25 A8
24 A9
21 A10
23 A11
2 A12
26 A13
27 A14
D0 11
D1 12
D2 13
D3 15
D4 16
D5 17
D6 18
D7 19
CE 20
OE 22


A14 27
A13 26
A12 2
A11 23
A10 21
A9 24
A8 25
A7 3
A6 4
A5 5
A4 6
A3 7
A2 8
A1 9
A0 10
ROW DECODER
262,144-BIT CELL MATRIX
COLUMN DECODER
COLUMN GATE
CE 20
OE 22
CE,OE LOGIC
OUTPUT BUFFER
11 D0
12 D1
13 D2
15 D3
16 D4
17 D5
18 D6
19 D7

A0 – A14 : ADDRESS INPUTS
CE : CHIP ENABLE INPUT
D0 – D7 : DATA OUTPUTS
OE : OUTPUT ENABLE INPUT
V_{PP} : PROGRAM POWER SUPPLY

An	CE	OE	VDD	Vpp	Dn	FUNCTION
An	0	0	+5V	+5V	DOUT	READ
An	0	1	+5V	+5V	HI-Z	OUTPUT DISABLE
X	1	X	+5V	+5V	HI-Z	STANDBY
An	0	1	+6V	+12.5V	DIN	PGM
An	1	0	+6V	+12.5V	DOUT	PGM VERIFY(1)
An	0	0	+6V	+12.5V	DOUT	PGM VERIFY(2)
X	1	1	+6V	+12.5V	HI-Z	PGM INH
A0	0	0	+5V	+5V	DEVICE CODE	ELECTRONIC SIGNATURE*

0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE
HI-Z: HIGH IMPEDANCE

*SEE FOLLOWING DESCRIPTION.

ELECTRONIC SIGNATURE FOR P ROM WRITER

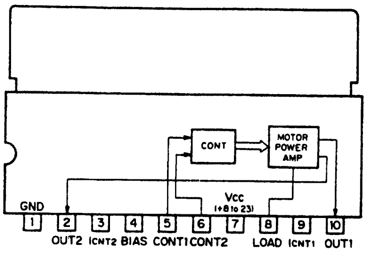
ADDRESS SETTINGS IN READ MODE

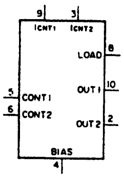
A1 – A8	A9	A10 – A13	A14, Vpp
0	12V	0	1

	A0	CODE DATA								
		D7	D6	D5	D4	D3	D2	D1	D0	
MAKER CODE	0	0	0	0	0	0	1	0	0	04H
DEVICE CODE	1	0	1	1	0	0	0	1	0	62H

BA6229 (ROHM)

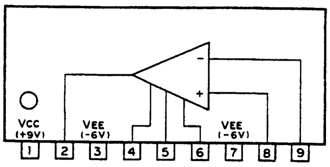
BI-DIRECTIONAL MOTOR DRIVER
- SIDE VIEW -


CONT
MOTOR POWER AMP
GND
Vcc (+8 to 23)
1
2 OUT2
3 ICNT2
4 BIAS
5 CONT1
6 CONT2
7
8 LOAD
9 ICNT1
10 OUT1


9 ICNT1
3 ICNT2
LOAD 8
OUT1 10
5 CONT1
6 CONT2
OUT2 2
BIAS 4

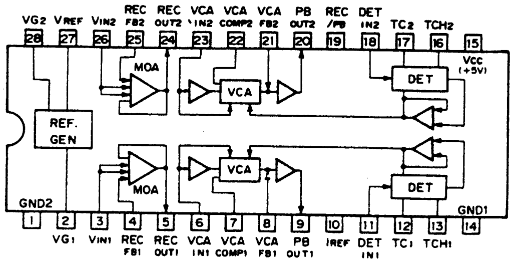
BX1356 (SONY)

VIDEO OUTPUT AMPLIFIER
- PRINTED SIDE -


VCC (+9V)
VEE (-6V)
VEE (-6V)
1
2
3
4
5
6
7
8
9

CX20099 (SONY) FLAT PACKAGE

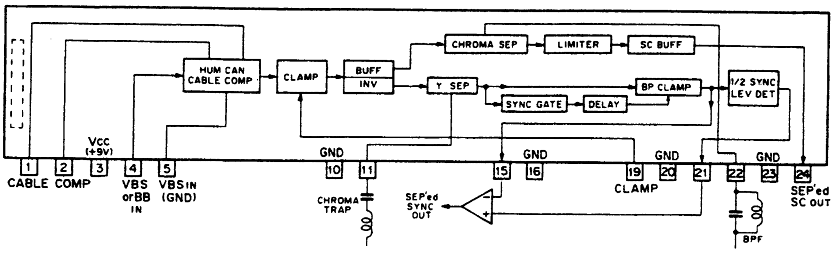
VOLTAGE CONTROLLED AMP/DETECTOR/MAIN OPERATIONAL AMP
- TOP VIEW -


28 VG2
27 VREF
26 VIN2
25 REC FB2
24 REC OUT2
23 VCA IN2
22 VCA COMP2
21 VCA FB2
20 PB OUT2
19 REC /PB
18 DET IN2
17 TC2
16 TCH2
15 Vcc (+5V)
MOA
VCA
DET
REF. GEN
GND2
GND1
1
2 VG1
3 VIN1
4 REC FB1
5 REC OUT1
6 VCA IN1
7 VCA COMP1
8 VCA FB1
9 PB OUT1
10 IREF
11 DET IN1
12 TC1
13 TCH1
14

DET ; DETECTOR
TC ; TIME CONSTANT
TCH ; TIME CONSTANT HOLD
VCA ; VOLTAGE CONTROLLED AMP

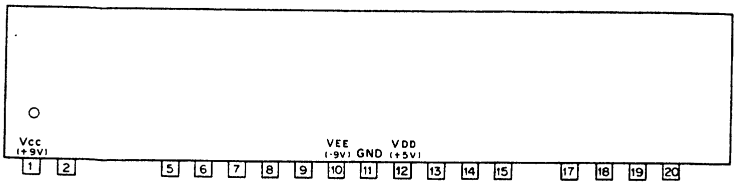
BX1040 (SONY)

SYNC SEPARATOR
- REAR VIEW -


HUM CAN CABLE COMP
CLAMP
BUFF
INV
CHROMA SEP
LIMITER
SC BUFF
Y SEP
SYNC GATE
DELAY
BP CLAMP
1/2 SYNC LEV DET
Vcc (+9V)
GND
GND
GND
GND
1 CABLE
2 COMP
3
4 VBS orBB IN
5 VBSIN (GND)
10
11
CHROMA TRAP
15
16
SEP'ed SYNC OUT
19 CLAMP
20
21
22
23
24 SEP'ed SC OUT
BPF

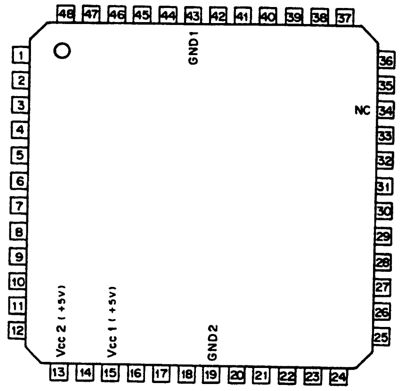
BX 1179A (SONY)

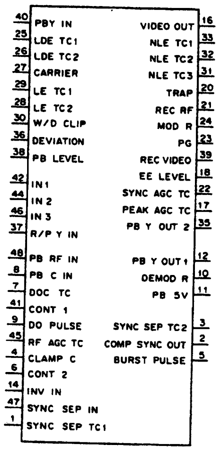
8-CHANNEL SELECTABLE SAMPLING HOLDER
- PRINTED SIDE -


Vcc (+9V)
VEE (-9V)
GND
VDD (+5V)
1
2
5
6
7
8
9
10
11
12
13
14
15
17
18
19
20

CX20030 (SONY) FLAT PACKAGE
CXA1230AR (SONY) FLAT PACKAGE

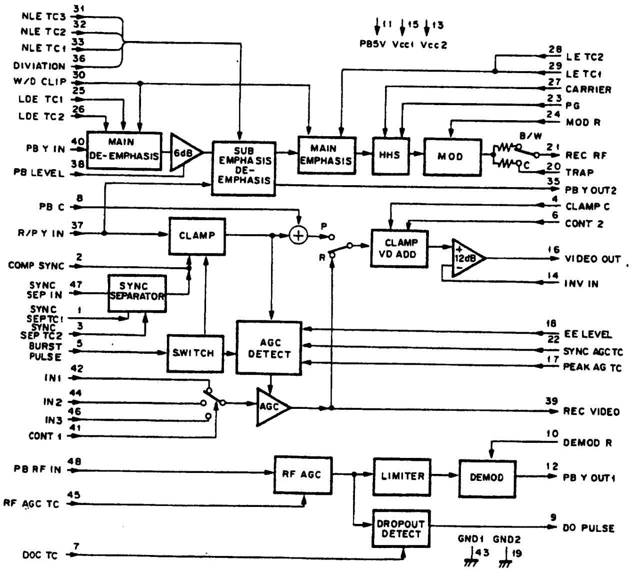
VIDEO Y SIGNAL PROCESSOR
- TOP VIEW -


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
GND1
NC
Vcc 2 (+5V)
Vcc 1 (+5V)
GND2


40 PBY IN
25 LDE TC1
26 LDE TC2
27 CARRIER
29 LE TC1
28 LE TC2
30 W/D CLIP
36 DEVIATION
38 PB LEVEL
42 IN1
44 IN 2
46 IN 3
37 R/P Y IN
48 PB RF IN
8 PB C IN
7 DOC TC
41 CONT 1
9 DO PULSE
45 RF AGC TC
4 CLAMP C
6 CONT 2
14 INV IN
47 SYNC SEP IN
1 SYNC SEP TC1
VIDEO OUT 16
NLE TC1 33
NLE TC2 32
NLE TC3 31
TRAP 20
REC RF 21
MOD R 24
PG 23
REC VIDEO 39
EE LEVEL 18
SYNC AGC TC 22
PEAK AGC TC 17
PB Y OUT 2 35
PB Y OUT1 12
DEMOD R 10
PB 5V 11
SYNC SEP TC2 3
COMP SYNC OUT 2
BURST PULSE 5

(V_{DD} = + 5V)

PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	I	SYNC SEP TC1	17	I	PEAK AGC TC	33	I	NLE TC1
2	O	COMP SYNC	18	I	EE LEVEL	34	–	NC
3	I	SYNC SEP TC2	19	–	GND2	35	O	PB Y OUT2
4	I	CLAMP C	20	I	TRAP	36	I	DEVIATION
5	I	BURST PULSE	21	O	REC RF	37	I	R/P Y IN
6	I	CONT2	22	I	SYNC AGC TC	38	I	PB LEVEL
7	I	DOC TC	23	I	PG	39	O	REC VIDEO
8	I	PB C	24	I	MOD R	40	I	PB Y IN
9	O	DO PULSE	25	I	LDE TC1	41	I	CONT1
10	I	DEMOD R	26	I	LDE TC2	42	I	IN1
11	I	PB 5V	27	I	CARRIER	43	–	GND1
12	O	PB Y OUT1	28	I	LE TC2	44	I	IN2
13	–	Vcc2	29	I	LE TC1	45	I	RF AGC TC
14	I	INV IN	30	I	W/D CLIP	46	I	IN3
15	–	Vcc1	31	I	NLE TC3	47	I	SYNC SEP IN
16	O	VIDEO OUT	32	I	NLE TC2	48	I	PB RF IN

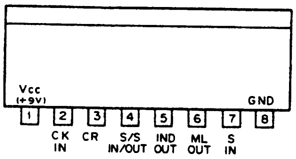

NLE TC3 31
NLE TC2 32
NLE TC1 33
DIVIATION 36
W/D CLIP 30
LDE TC1 25
LDE TC2 26
PB Y IN 40
PB LEVEL 38
PB C 8
R/P Y IN 37
COMP SYNC 2
SYNC SEP IN 47
SYNC SEP TC1 1
SYNC SEP TC2 3
BURST PULSE 5
IN1 42
IN2 44
IN3 46
CONT 1 41
PB RF IN 48
RF AGC TC 45
DOC TC 7
11 15 13
PB5V Vcc1 Vcc2
MAIN DE-EMPHASIS
6dB
SUB EMPHASIS DE-EMPHASIS
MAIN EMPHASIS
HHS
MOD
B/W
CLAMP
P
R
CLAMP VD ADD
12dB
SYNC SEPARATOR
SWITCH
AGC DETECT
AGC
RF AGC
LIMITER
DEMOD
DROPOUT DETECT
28 LE TC2
29 LE TC1
27 CARRIER
23 PG
24 MOD R
21 REC RF
20 TRAP
35 PB Y OUT2
4 CLAMP C
6 CONT 2
16 VIDEO OUT
14 INV IN
18 EE LEVEL
22 SYNC AGC TC
17 PEAK AG TC
39 REC VIDEO
10 DEMOD R
12 PB Y OUT1
9 DO PULSE
GND1 GND2
43 19

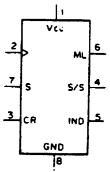
INPUT
BURST PULSE : BURST PULSE INPUT
CARRIER : FM MODULATOR CARRIER CONTROL INPUT
CLAMP C : EXTERNAL CAPACITOR FOR CLAMPING INPUT
CONT 1 : INTERNAL SWITCH CONTROL INPUT
CONT 2 : MUTING AND VD-ADD CONTROL INPUT
DEMOD R : EXTERNAL RESISTOR FOR FM DEMODULATOR INPUT
DEVIATION : DEVIATION CONTROL INPUT
DOC TC : EXTERNAL CAPACITOR FOR DROPOUT DETECTION INPUT
EE LEVEL : SYNC AGC CONTROL INPUT
IN 1 – IN 3 : RECORDING VIDEO SIGNAL INPUTS
INV IN : INVERTING INPUT FOR VIDEO CIRCUIT
LDE TC1.TC2 : EXTERNAL RESISTOR FOR LINEAR DE-EMPHASIS INPUTS
LE TC1.TC2 : EXTERNAL CR FOR LINEAR EMPHASIS INPUTS
MOD R : EXTERNAL RESISTOR FOR FM MODULATOR INPUT
NLE TC1 – NLE TC3
: EXTERNAL CAPACITOR FOR NON-LINEAR EMPHASIS INPUTS
PB 5V : POWER FOR PLAYBACK SYSTEM INPUT
PB C : PB CHROMA INPUT AND M/C CONTROL INPUT
PB LEVEL : PB Y OUT2 SIGNAL CONTROL INPUT
PB RF IN : PB RF (FM) INPUT
PB Y IN : PB Y SIGNAL FOR DE-EMPHASIS INPUT
PEAK AGC TC : EXTERNAL CR INPUT FOR PEAK .AGC
PG : PG (30Hz) SIGNAL INPUT
RF AGC TC : EXTERNAL CR FOR RF AGC INPUT
R/P Y IN : Y SIGNAL FOR CLAMPING INPUT
SYNC AGC TC : EXTERNAL CR INPUT FOR SYNC AGC
SYNC SEP IN : SYNC SEPARATION SIGNAL INPUT
SYNC SEP TC1.TC2
: EXTERNAL CR INPUT FOR SYNC SEPARATION
TRAP : TRAP INPUT
W/D CLIP : LINEAR EMPHASIS AND W/D CLIP CONTROL INPUT

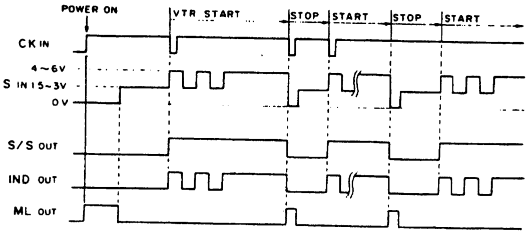
OUTPUT
COMP SYNC : COMPOSITE SYNC OUTPUT
DO PULSE : DROPOUT PULSE OUTPUT
PB Y OUT1 : FREQUENCY DEMODULATOR OUTPUT
PB Y OUT2 : PB Y OUTPUT
REC RF : Y-FM SIGNAL OUTPUT
REC VIDEO . AMPLIFIED Y SIGNAL OUTPUT
VIDEO OUT : VIDEO OUTPUT

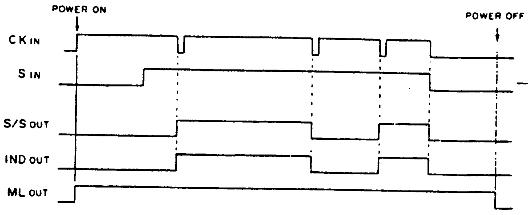
CX518 (SONY)

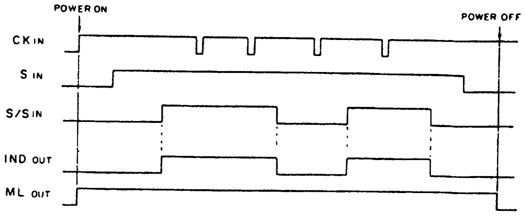
INTERFACE CIRCUIT BETWEEN VTR AND CAMERA
- SIDE VIEW -


Vcc (+9V)
GND
1
2
3
4
5
6
7
8
CK IN
CR
S/S IN/OUT
IND OUT
ML OUT
S IN

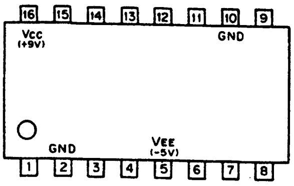

1
Vcc
2
ML 6
7 S
S/S 4
3 CR
IND 5
GND
8

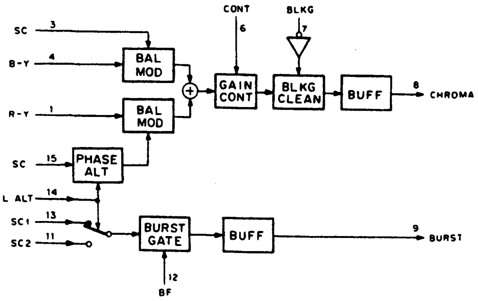

POWER ON
VTR START
STOP
START
STOP
START
CK IN
4~6V
S IN 1.5~3V
0V
S/S OUT
IND OUT
ML OUT


POWER ON
POWER OFF
CK IN
S IN
S/S OUT
IND OUT
ML OUT

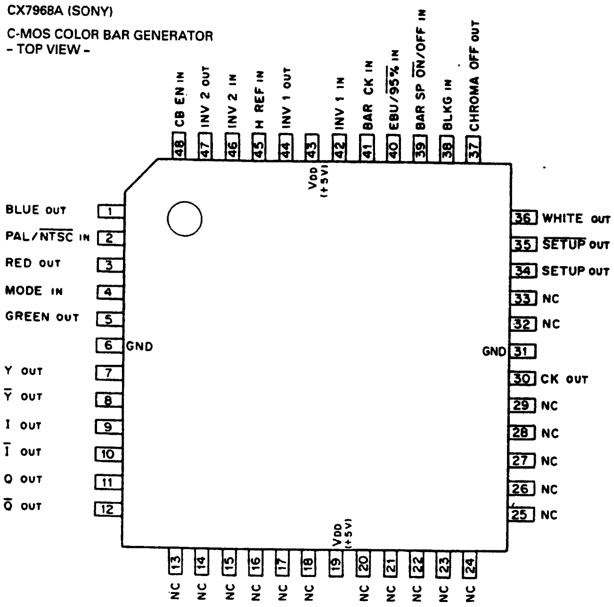

POWER ON
POWER OFF
CK IN
S IN
S/S IN
IND OUT
ML OUT

CX22017 (SONY)
VIDEO SIGNAL PROCESSOR
- TOP VIEW -


16
15
14
13
12
11
10
9
Vcc
(+9V)
GND
GND
VEE
(-5V)
1
2
3
4
5
6
7
8

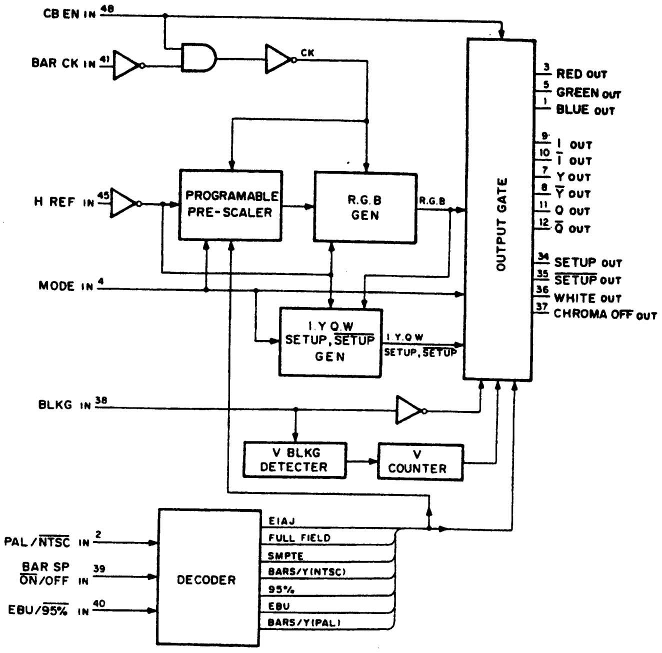

CONT
BLKG
SC 3
B-Y 4
R-Y 1
6
7
BAL MOD
BAL MOD
GAIN CONT
BLKG CLEAN
BUFF
8 CHROMA
SC 15
PHASE ALT
L ALT 14
SC1 13
SC2 11
BURST GATE
BUFF
9 BURST
12
BF

CX7968A (SONY)
C-MOS COLOR BAR GENERATOR
- TOP VIEW -


48 CB EN IN
47 INV 2 OUT
46 INV 2 IN
45 H REF IN
44 INV 1 OUT
43 VDD (+5V)
42 INV 1 IN
41 BAR CK IN
40 EBU/95% IN
39 BAR SP ON/OFF IN
38 BLKG IN
37 CHROMA OFF OUT
BLUE OUT 1
PAL/NTSC IN 2
RED OUT 3
MODE IN 4
GREEN OUT 5
6 GND
Y OUT 7
Ȳ OUT 8
I OUT 9
Ī OUT 10
Q OUT 11
Q̄ OUT 12
36 WHITE OUT
35 SETUP OUT
34 SETUP OUT
33 NC
32 NC
GND 31
30 CK OUT
29 NC
28 NC
27 NC
26 NC
25 NC
13 NC
14 NC
15 NC
16 NC
17 NC
18 NC
19 VDD (+5V)
20 NC
21 NC
22 NC
23 NC
24 NC

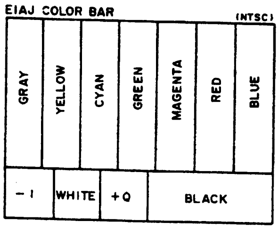
INPUT				FUNCTION
PAL/$\overline{\text{NTSC}}$	MODE	EBU/$\overline{95\%}$	BAR SP	
0	0	0	0	EIAJ COLOR BAR
0	0	0	1	FULL FIELD COLOR BAR
0	0	1	0	INHIBIT
0	0	1	1	INHIBIT
0	1	0	0	EIAJ COLOR BAR
0	1	0	1	FULL FIELD COLOR BAR
0	1	1	0	SMPTE COLOR BAR
0	1	1	1	COLOR BAR + Y BAR
1	0	0	0	95% COLOR BAR
1	0	0	1	INHIBIT
1	0	1	0	EBU COLOR BAR
1	0	1	1	INHIBIT
1	1	0	0	95% COLOR BAR
1	1	0	1	COLOR BAR + Y BAR
1	1	1	0	EBU COLOR BAR
1	1	1	1	INHIBIT

0 , LOW LEVEL
1 ; HIGH LEVEL

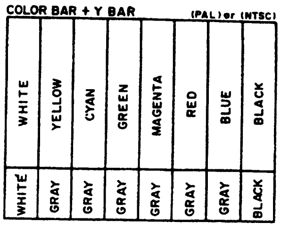

CB EN IN 48
BAR CK IN 41
CK
H REF IN 45
PROGRAMABLE PRE-SCALER
R.G.B GEN
R.G.B
MODE IN 4
I.Y.Q.W SETUP, SETUP GEN
I.Y.Q.W SETUP, SETUP
BLKG IN 38
V BLKG DETECTER
V COUNTER
OUTPUT GATE
3 RED OUT
5 GREEN OUT
1 BLUE OUT
9 I OUT
10 Ī OUT
7 Y OUT
8 Ȳ OUT
11 Q OUT
12 Q̄ OUT
34 SETUP OUT
35 SETUP OUT
36 WHITE OUT
37 CHROMA OFF OUT
PAL/NTSC IN 2
BAR SP ON/OFF IN 39
EBU/95% IN 40
DECODER
EIAJ
FULL FIELD
SMPTE
BARS/Y(NTSC)
95%
EBU
BARS/Y(PAL)

O COLOR BAR PATTERN

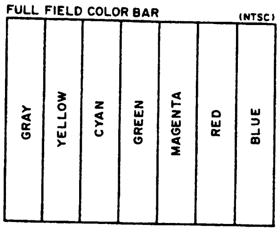
EIAJ COLOR BAR (NTSC)


GRAY
YELLOW
CYAN
GREEN
MAGENTA
RED
BLUE
-I
WHITE
+Q
BLACK

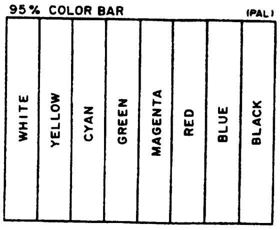
COLOR BAR + Y BAR (PAL) or (NTSC)


WHITE
YELLOW
CYAN
GREEN
MAGENTA
RED
BLUE
BLACK
WHITE
GRAY
GRAY
GRAY
GRAY
GRAY
GRAY
BLACK

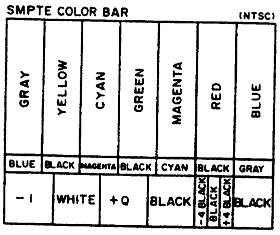
FULL FIELD COLOR BAR (NTSC)


GRAY
YELLOW
CYAN
GREEN
MAGENTA
RED
BLUE

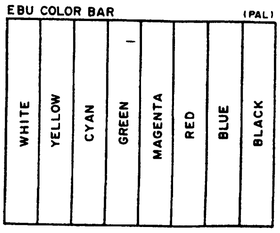
95% COLOR BAR (PAL)


WHITE
YELLOW
CYAN
GREEN
MAGENTA
RED
BLUE
BLACK

SMPTE COLOR BAR (NTSC)

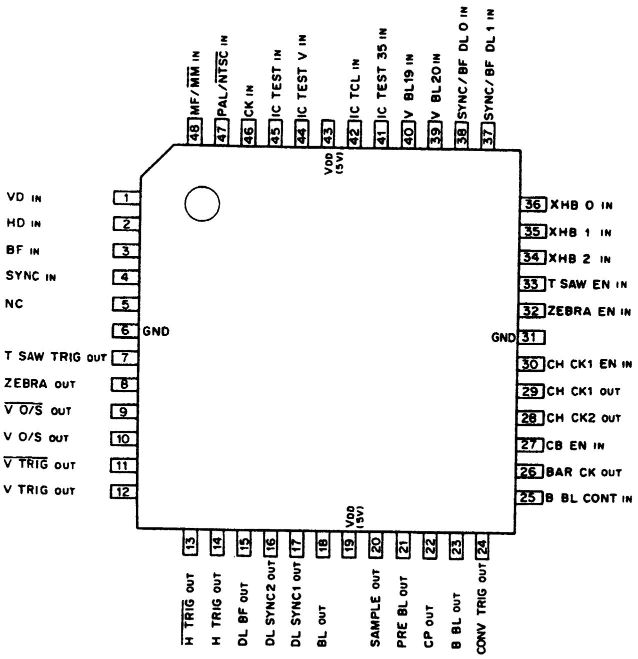

GRAY
YELLOW
CYAN
GREEN
MAGENTA
RED
BLUE
BLUE
BLACK
MAGENTA
BLACK
CYAN
BLACK
GRAY
-I
WHITE
+Q
BLACK
-4 BLACK
BLACK
+4 BLACK
BLACK

EBU COLOR BAR (PAL)


WHITE
YELLOW
CYAN
GREEN
MAGENTA
RED
BLUE
BLACK

CX7969 (SONY)

C-MOS PULSE GENERATOR
- TOP VIEW -


1 VD IN
2 HD IN
3 BF IN
4 SYNC IN
5 NC
6 GND
7 T SAW TRIG OUT
8 ZEBRA OUT
9 $\overline{V\ O/S}$ OUT
10 V O/S OUT
11 $\overline{V\ TRIG}$ OUT
12 V TRIG OUT
13 $\overline{H\ TRIG}$ OUT
14 H TRIG OUT
15 DL BF OUT
16 DL SYNC2 OUT
17 DL SYNC1 OUT
18 BL OUT
19 VDD (5V)
20 SAMPLE OUT
21 PRE BL OUT
22 CP OUT
23 B BL OUT
24 CONV TRIG OUT
25 B BL CONT IN
26 BAR CK OUT
27 CB EN IN
28 CH CK2 OUT
29 CH CK1 OUT
30 CH CK1 EN IN
31 GND
32 ZEBRA EN IN
33 T SAW EN IN
34 XHB 2 IN
35 XHB 1 IN
36 XHB 0 IN
37 SYNC/BF DL 1 IN
38 SYNC/BF DL 0 IN
39 V BL20 IN
40 V BL19 IN
41 IC TEST 35 IN
42 IC TCL IN
43 VDD (5V)
44 IC TEST V IN
45 IC TEST IN
46 CK IN
47 PAL/$\overline{NTSC}$ IN
48 MF/$\overline{MM}$ IN

1. SYSTEM DESIGNATION

INPUT	SYSTEM
PAL/$\overline{NTSC}$ IN	
1	PAL, SECAM
0	NTSC, PALM

2. TYPE OF TUBE

INPUT	FUNCTION
MF/$\overline{MM}$ IN	
1	MAG-STA TUBE
0	MAG-MAG TUBE

3. V BLKG WIDTH (NTSC ONLY)

INPUT		V BLKG WIDTH
V BL 19	V BL 20	
1	X	19H
0	1	20H
0	0	21H

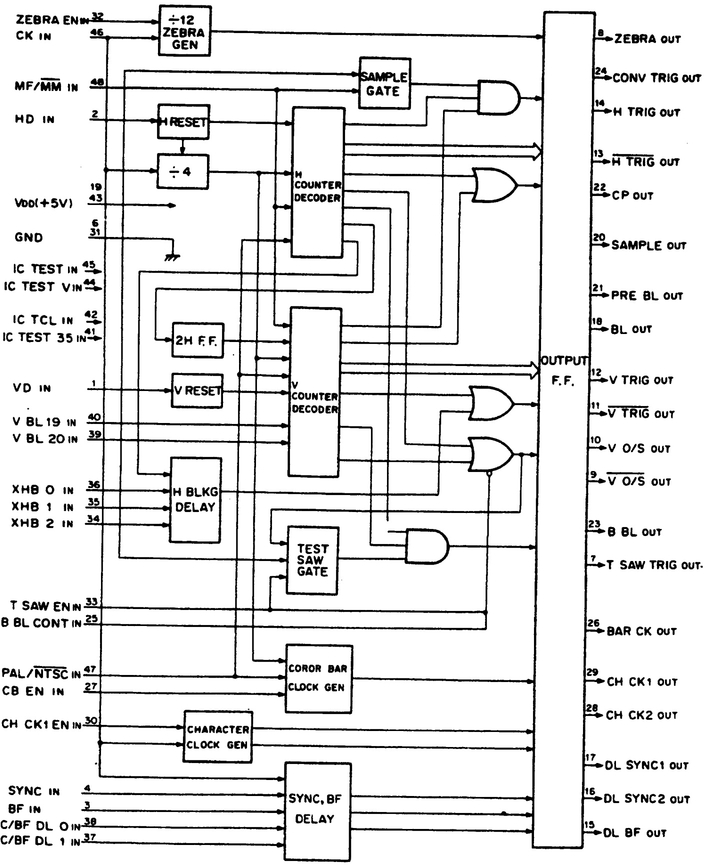
4. H BLKG WIDTH

INPUT			BLKG WIDTH (μS)	
XHB2	XHB1	XHB0	NTSC	PAL
1	1	1	10.27	11.49
1	1	0	10.34	11.56
1	0	1	10.41	11.63
1	0	0	10.48	11.70
0	1	1	10.55	11.77
0	1	0	10.62	11.84
0	0	1	10.69	11.91
0	0	0	10.76	11.98

5. DELAY TIME

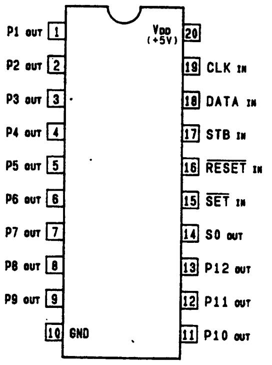
INPUT		DELAY TIME (nS)		
SYNC/BF DL1	SYNC/BF DL2	DL SYNC 1	DL SYNC 2	DL BF
1	1	140	210	140
1	0	210	280	210
0	1	630	700	630
0	0	700	770	700

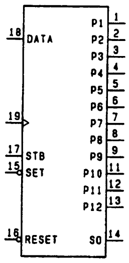
1; HIGH LEVEL
0; LOW LEVEL
X; DON'T CARE


ZEBRA EN IN 32
CK IN 46
÷12 ZEBRA GEN
MF/$\overline{MM}$ IN 48
SAMPLE GATE
HD IN 2
H RESET
÷4
H COUNTER DECODER
VDD(+5V) 19 43
GND 6 31
IC TEST IN 45
IC TEST V IN 44
IC TCL IN 42
IC TEST 35 IN 41
2H F.F.
VD IN 1
V RESET
V COUNTER DECODER
V BL 19 IN 40
V BL 20 IN 39
XHB 0 IN 36
XHB 1 IN 35
XHB 2 IN 34
H BLKG DELAY
TEST SAW GATE
T SAW EN IN 33
B BL CONT IN 25
PAL/$\overline{NTSC}$ IN 47
CB EN IN 27
COROR BAR CLOCK GEN
CH CK1 EN IN 30
CHARACTER CLOCK GEN
SYNC IN 4
BF IN 3
SYNC/BF DL 0 IN 38
SYNC/BF DL 1 IN 37
SYNC, BF DELAY
OUTPUT F.F.
8 ZEBRA OUT
24 CONV TRIG OUT
14 H TRIG OUT
13 $\overline{H\ TRIG}$ OUT
22 CP OUT
20 SAMPLE OUT
21 PRE BL OUT
18 BL OUT
12 V TRIG OUT
11 $\overline{V\ TRIG}$ OUT
10 V O/S OUT
9 $\overline{V\ O/S}$ OUT
23 B BL OUT
7 T SAW TRIG OUT
26 BAR CK OUT
29 CH CK1 OUT
28 CH CK2 OUT
17 DL SYNC1 OUT
16 DL SYNC2 OUT
15 DL BF OUT

CX7991 (SONY)

C-MOS 12-BIT SERIAL TO PARALLEL CONVERTER
- TOP VIEW -

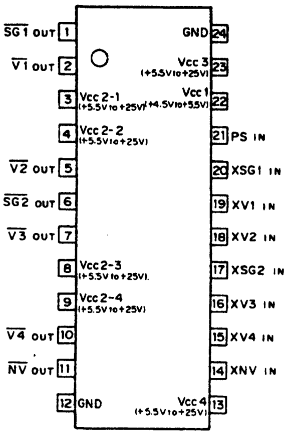

P1 OUT 1
P2 OUT 2
P3 OUT 3
P4 OUT 4
P5 OUT 5
P6 OUT 6
P7 OUT 7
P8 OUT 8
P9 OUT 9
10 GND
20 VDD (+5V)
19 CLK IN
18 DATA IN
17 STB IN
16 $\overline{RESET}$ IN
15 $\overline{SET}$ IN
14 S0 OUT
13 P12 OUT
12 P11 OUT
11 P10 OUT


18 DATA
19
17 STB
15 SET
16 RESET
P1 1
P2 2
P3 3
P4 4
P5 5
P6 6
P7 7
P8 8
P9 9
P10 11
P11 12
P12 13
S0 14

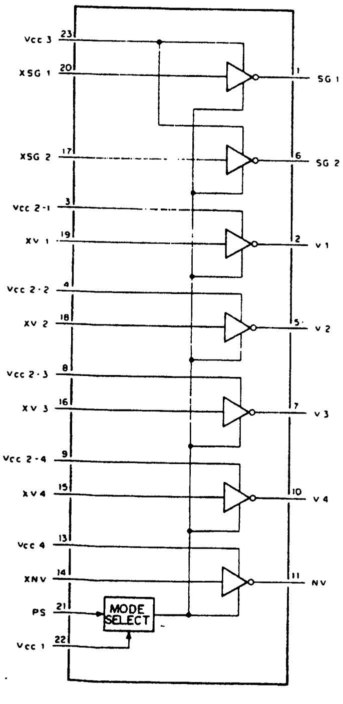
CLK :CLOCK
DATA :SERIAL DATA INPUT
P1-P12 :PARALLEL DATA
RESET :RESET SIGNAL
SET :SET SIGNAL
SO :SERIAL DATA OUTPUT
STB :STROBE SIGNAL

CXA1065M (SONY) FLAT PACKAGE

INVERTING DRIVER FOR CCD CLOCK WITH POWER SAVE
- TOP VIEW -

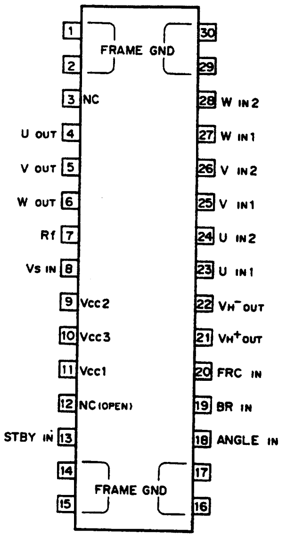

$\overline{SG1}$ OUT 1
$\overline{V1}$ OUT 2
3 Vcc 2-1 (+5.5V to +25V)
4 Vcc 2-2 (+5.5V to +25V)
$\overline{V2}$ OUT 5
$\overline{SG2}$ OUT 6
$\overline{V3}$ OUT 7
8 Vcc 2-3 (+5.5V to +25V)
9 Vcc 2-4 (+5.5V to +25V)
$\overline{V4}$ OUT 10
$\overline{NV}$ OUT 11
12 GND
GND 24
Vcc 3 (+5.5V to +25V) 23
Vcc 1 (+4.5V to 5.5V) 22
21 PS IN
20 XSG1 IN
19 XV1 IN
18 XV2 IN
17 XSG2 IN
16 XV3 IN
15 XV4 IN
14 XNV IN
Vcc 4 (+5.5V to +25V) 13

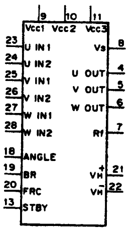
XV1-XV4 ; VERTICAL REGISTER TRANSMISSION CLOCK INPUT
$\overline{V1}$ - $\overline{V4}$; VERTICAL REGISTER TRANSMISSION CLOCK OUTPUT
XSG1, XSG2 ; SENSER GATE PULSE INPUT
$\overline{SG1}$, $\overline{SG2}$; SENSER GATE PULSE OUTPUT
XNV ; DRIVER INPUT
$\overline{NV}$; DRIVER OUTPUT
PS : POWER SAVE INPUT
Vcc 1 ; BIAS VOLTAGE
Vcc 2-1 ; $\overline{V1}$ OUTPUT PULSE VOLTAGE
Vcc 2-2 ; $\overline{V2}$ OUTPUT PULSE VOLTAGE
Vcc 2-3 ; $\overline{V3}$ OUTPUT PULSE VOLTAGE
Vcc 2-4 ; $\overline{V4}$ OUTPUT PULSE VOLTAGE
Vcc 3 ; $\overline{SG1}$, $\overline{SG2}$ OUTPUT PULSE VOLTAGE
Vcc 4 ; $\overline{NV}$ OUTPUT PULSE VOLTAGE


Vcc 3 23
XSG 1 20
1 SG 1
XSG 2 17
6 SG 2
Vcc 2-1 3
XV 1 19
2 V 1
Vcc 2-2 4
XV 2 18
5 V 2
Vcc 2-3 8
XV 3 16
7 V 3
Vcc 2-4 9
XV 4 15
10 V 4
Vcc 4 13
XNV 14
11 NV
PS 21
MODE SELECT
Vcc 1 22

CXA1127M (SONY) FLAT PACKAGE

CAPSTAN MOTOR DRIVER
- TOP VIEW -


1
2
FRAME GND
3 NC
U OUT 4
V OUT 5
W OUT 6
Rf 7
Vs IN 8
9 Vcc2
10 Vcc3
11 Vcc1
12 NC (OPEN)
STBY IN 13
14
15
FRAME GND
30
29
28 W IN 2
27 W IN 1
26 V IN 2
25 V IN 1
24 U IN 2
23 U IN 1
22 VH⁻ OUT
21 VH⁺ OUT
20 FRC IN
19 BR IN
18 ANGLE IN
17
16


9 10 11
Vcc1 Vcc2 Vcc3
23 U IN1
24 U IN2
25 V IN1
26 V IN2
27 W IN1
28 W IN2
18 ANGLE
19 BR
20 FRC
13 STBY
Vs 8
U OUT 4
V OUT 5
W OUT 6
Rf 7
VH⁺ 21
VH⁻ 22

INPUT
BR : MOTOR BRAKE (H : STOP, L : PLAY)
FRC : FWD/REV CONTROL (H : FWD, L : REV)
STBY : STAND-BY (GND : POWER OFF)
U IN1, 2 : U PHASE INPUTS
V IN1, 2 : V PHASE INPUTS
Vs : MOTOR INPUT VOLTAGE (Vs < Vcc2)
W IN1, 2 : W PHASE INPUTS

OUTPUT
U OUT : U PHASE OUTPUT
V OUT : V PHASE OUTPUT
V_H^+, V_H^- : HALL BIAS CURRENT
W OUT : W PHASE OUTPUT

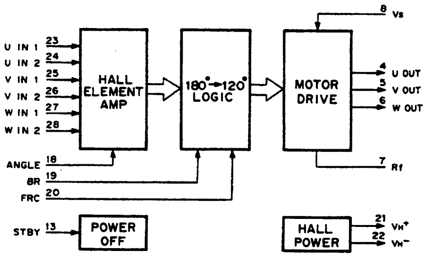
OTHERS
Rf : GND FOR OUTPUT TRANSISTOR
Rs : GND FOR OUTPUT DRIVER

NOTE :

Vcc1	+4 to +7V	OPEN
Vcc2	+4 to +12V	+6 to +12V
Vcc3	short to Vcc1	short to Vcc2
Vs	Vs<Vcc2	Vs<Vcc2

INPUT			FRC	FUNCTION
U	V	W		
H	H	L	0	W→V PHASE
			1	V→W PHASE
H	L	L	0	W→U PHASE
			1	U→W PHASE
L	L	H	0	V→W PHASE
			1	W→V PHASE
L	H	L	0	U→V PHASE
			1	V→U PHASE
H	L	H	0	V→U PHASE
			1	U→V PHASE
L	H	H	0	U→W PHASE
			1	W→U PHASE

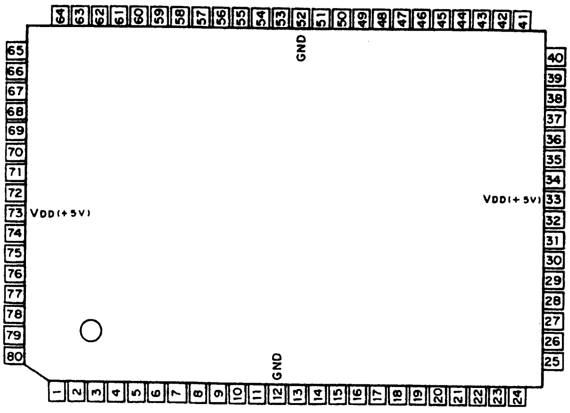
H : HIGH LEVEL
L : LOW LEVEL
1 : 2.0 to Vcc2
0 : 0 to 0.3V


U IN 1 23
U IN 2 24
V IN 1 25
V IN 2 26
W IN 1 27
W IN 2 28
HALL ELEMENT AMP
180°→120° LOGIC
MOTOR DRIVE
8 Vs
4 U OUT
5 V OUT
6 W OUT
7 Rf
ANGLE 18
BR 19
FRC 20
STBY 13
POWER OFF
HALL POWER
21 VH⁺
22 VH⁻

CXD1132Q (SONY) FLAT PACKAGE

- C-MOS TIME CODE GENERATOR/READER

- TOP VIEW -


64
63
62
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58
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56
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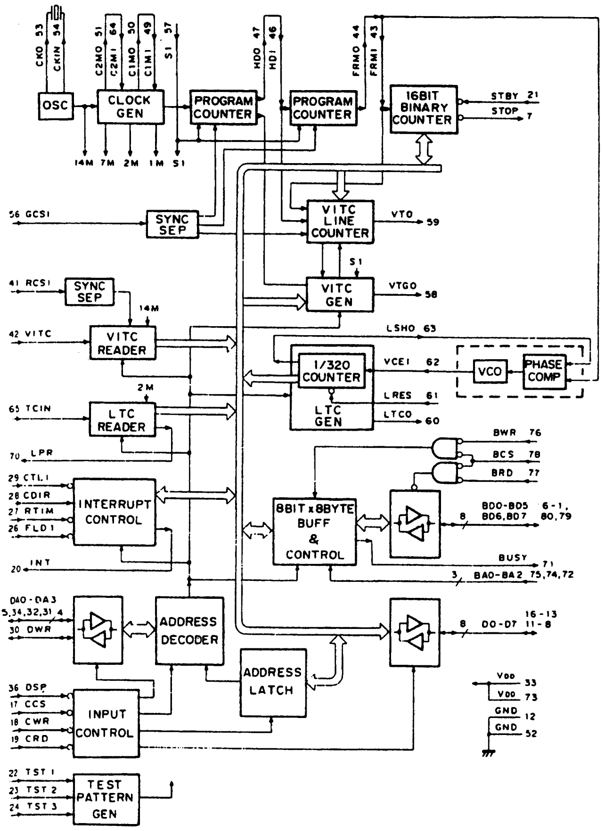
54
53
52
51
50
49
48
47
46
45
44
43
42
41
GND
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
VDD(+5V)
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26
25
VDD(+5V)
GND
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	I/O	DB5	17	I	CCS	33	–	VDD	49	I	C1MI	65	I	TCIN
2	I/O	DB4	18	I	CWR	34	I/O	DA1	50	O	C1MO	66	O	DCLK
3	I/O	DB3	19	I	CRD	35	I/O	DA0	51	O	C2MO	67	O	DATA
4	I/O	DB2	20	O	INT	36	I	DSP	52	–	GND	68	O	RFLD
5	I/O	DB1	21	I	STBY	37	O	DTSE	53	O	CKO	69	O	RDSY
6	I/O	DB0	22	I	TST1	38	O	VRCK	54	I	CKIN	70	O	LRP
7	O	STOP	23	I	TST2	39	I	SLLM	55	I	SLCK	71	O	BUSY
8	I/O	D7	24	I	TST3	40	O	RVDO	56	I	GCSI	72	I	BA2
9	I/O	D6	25	I	PON	41	I	RCSI	57	I	S1	73	–	VDD
10	I/O	D5	26	I	FLD1	42	I	VITC	58	O	VTGO	74	I	BA1
11	I/O	D4	27	I	RTIM	43	I	FRMI	59	O	VTO	75	I	BA0
12	–	GND	28	I	CDIR	44	O	FRMO	60	O	LTCO	76	I	BWR
13	I/O	D3	29	I	CTLI	45	O	GLSY	61	I	LRES	77	I	BRD
14	I/O	D2	30	I/O	DWR	46	I	HDI	62	I	VCEI	78	I	BCS
15	I/O	D1	31	I/O	DA3	47	O	HDO	63	O	LSHO	79	I/O	BD7
16	I/O	D0	32	I/O	DA2	48	O	VDO	64	I	C2MI	80	I/O	BD6


CKO 53
CKIN 54
C2MO 51
C2MI 64
C1MO 50
C1MI 49
S1 57
HDO 47
HDI 46
FRMO 44
FRMI 43
OSC
CLOCK GEN
PROGRAM COUNTER
PROGRAM COUNTER
16BIT BINARY COUNTER
STBY 21
STOP 7
14M 7M 2M 1M S1
56 GCSI
SYNC SEP
VITC LINE COUNTER
VTO 59
S1
41 RCSI
SYNC SEP
14M
VITC GEN
VTGO 58
42 VITC
VITC READER
LSHO 63
1/320 COUNTER
VCEI 62
VCO
PHASE COMP
2M
LRES 61
65 TCIN
LTC READER
LTC GEN
LTCO 60
BWR 76
70 LPR
BCS 78
BRD 77
29 CTLI
28 CDIR
27 RTIM
26 FLD1
INTERRUPT CONTROL
8BIT x 8BYTE BUFF & CONTROL
BD0-BD5 6-1,
BD6,BD7 80,79
8
BUSY 71
20 INT
3 BA0-BA2 75,74,72
DA0-DA3
35,34,32,31 4
30 DWR
ADDRESS DECODER
8 D0-D7 16-13 11-8
ADDRESS LATCH
VDD 33
VDD 73
GND 12
GND 52
36 DSP
17 CCS
18 CWR
19 CRD
INPUT CONTROL
22 TST1
23 TST2
24 TST3
TEST PATTERN GEN

SIGNAL DESCRIPTION

BA0-BA2	B ADDRESS INPUTS
BCS	B CHIP ENABLE INPUT ("L":ENABLE)
BD0-BD7	B DATA I/O
BRD	B READ INPUT ("L":READ)
BUSY	B BUSY OUTPUT
BWR	B WRITE INPUT ("L":WRITE)
C1MI	SYSTEM CLOCK INPUT
C1MO	CLOCK 1 OUTPUT (CKIN X 1/16)
C2MI	LTC READ CLOCK INPUT
C2MO	CLOCK 2 OUTPUT (CKIN X 1/8)
CCS	C CHIP ENABLE INPUT ("L":ENABLE)(when DSP is low) ADDRESS LATCH ENABLE INPUT ("L":ENABLE)(when DSP is high)
CDIR	CTL DIRECTION INPUT
CKIN	SYSTEM CLOCK INPUT

VIDEO SIGNAL FORMAT	CKIN
SMPTE 29.97HZ 525LINE	14.318MHZ
EBU 25HZ 625LINE	14.500MHZ

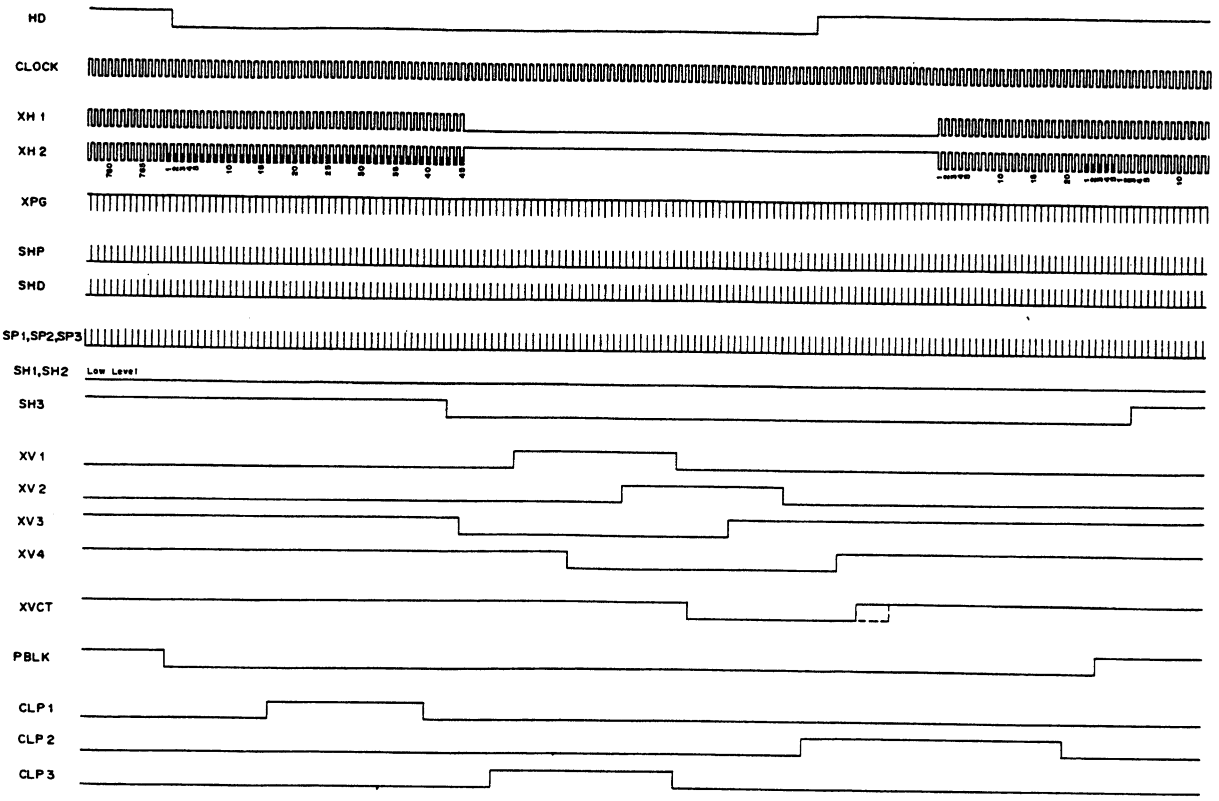
CKO	CLOCK OUTPUT
CRD	C READ INPUT ("L":READ)
CTLI	CTL SIGNAL INPUT
CWR	C WRITE INPUT ("L":WRITE)
D0-D7	DATA I/O (when DSP is low)/ ADDRESS INPUTS
DA0-DA3	E ADDRESS INPUTS (when DSP is high) D ADDRESS OUTPUT (when DSP is low)
DATA	DEMODULATED SERIAL DATA OUTPUT
DCLK	DEMODULATED CLOCK OUTPUT
DSP	DISPLAY BUS SELECT INPUT DSP controls CCS,DA0-DA3 and DVR.
DTSE	VITC DATA SEARCH FLAG OUTPUT
DWR	WRITE ENABLE OUTPUT ("L":ENABLE)(when DSP is low) E ADDRESS 4 INPUT (when DSP is high)
EA4	ADDRESS BUS INPUT
FLD1	FIELD REFERENCE INPUT ("L":FILD 1)
FRMI	FRAME SIGNAL INPUT
FRMO	FRAME SIGNAL OUTPUT
GCSI	COMPOSITE SYNC INPUT
GLSY	LOST SYNC FLAG OUTPUT
HDI	HORIZONTAL SYNC INPUT
HDO	HORIZONTAL SYNC OUTPUT
INT	ITERRUPT REQUEST OUTPUT
LPR	LTC READ REQUEST OUTPUT
LRES	LTC COUNTER RESET INPUT ("L":RESET)
LSHO	SYNCHRONOUS SIGNAL OUTPUT
LTCO	LTC SIGNAL OUTPUT
PON	SYSTEM RESET INPUT ("L":PON)
RCSI	COMPOSITE SYNC INPUT
RDSY	READ SYNC WORD DATA OUTPUT
RESS	RESET INPUT ("L":RTIM)
RFLD	FIELD DATA OUTPUT
RTIM	TIME ADDRESS RESET INPUT ("L":RESET)
RVDO	VITC READ DATA OUTPUT

S1	SIGNAL FORMAT SELECT INPUT "H":NTSC/PAL-M 29.94HZ 525LINE "L":PAL/SECAM 25Hz 625LINE
SLCK	SELECT CLOCK INPUT

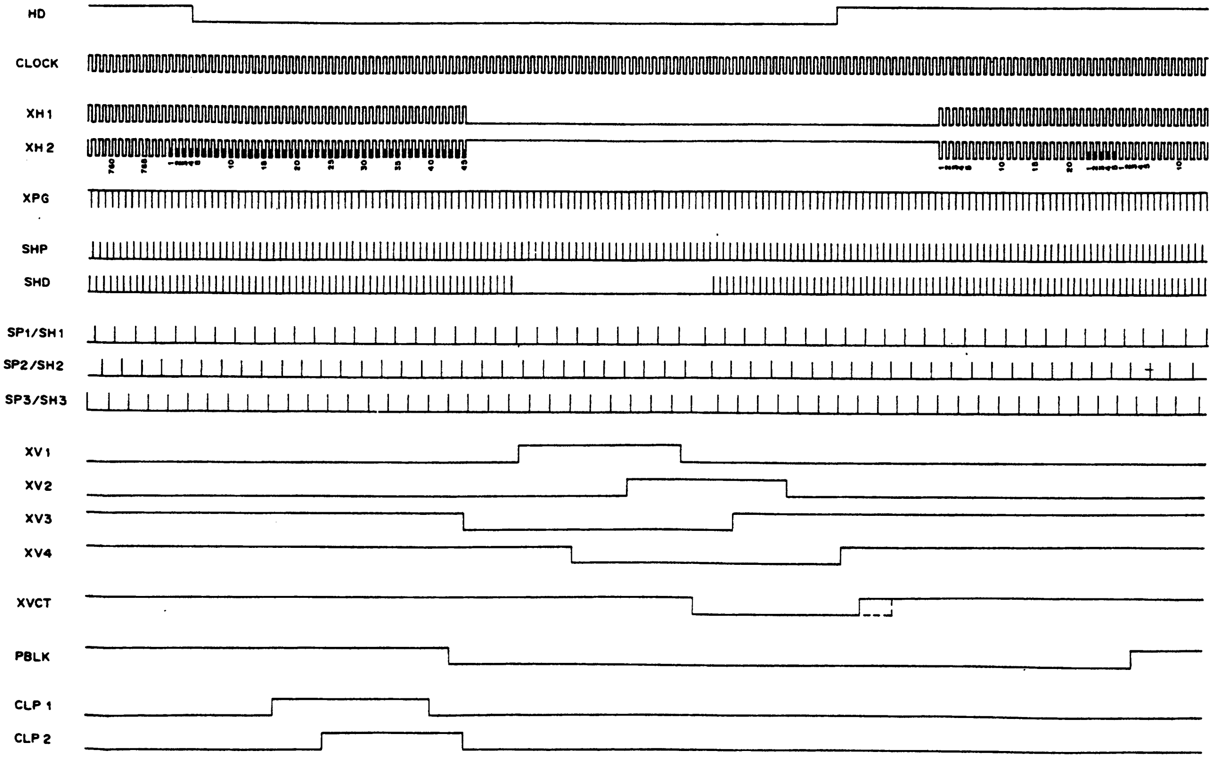
SLCK	"L"		"H"	
CKIN	14.318MHZ	14.5MHZ	7.159MHZ	7.25MHZ
SPEC	SMPTE	EBU	SMPTE	EBU

SLLM	READ SIZE SELECT INPUT
STBY	STANDBY READ FLAG INPUT
STOP	STOP OUTPUT ("L":STOP)
TCIN	LONGITUDINAL TIME AND CONTROL CODE INPUT
TST1-TST3	TEST INPUT
VCEI	LTC CLOCK INPUT
VDO	HORIZONTAL SYNC DRIVE OUTPUT
VITC	VITC SIGNAL INPUT
VTGO	VITC GATE SIGNAL OUTPUT
VTO	VITC SIGNAL OUTPUT ("H":VITC)

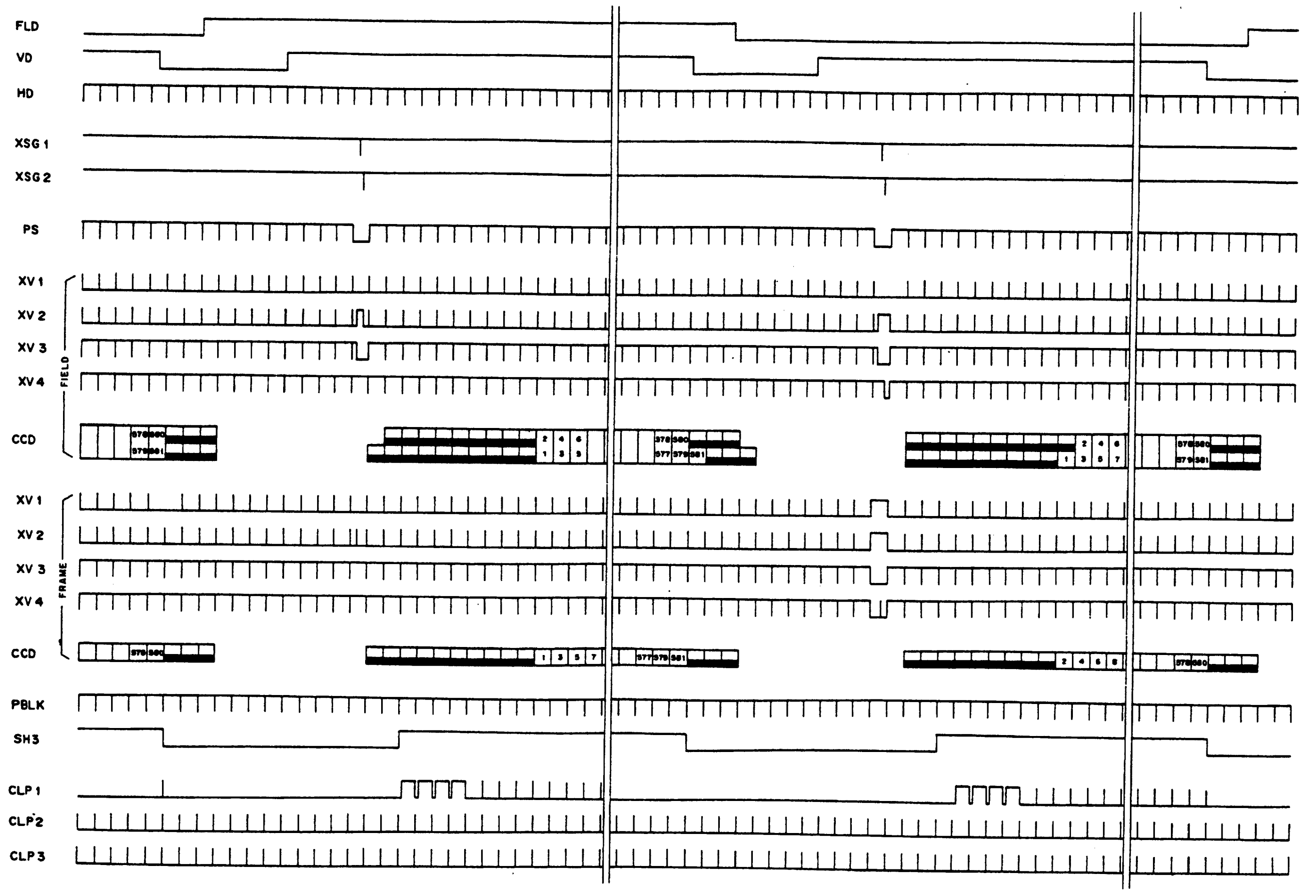
EIA (NTSC,PALM) B/W,3-CHIP COLOR


HD
CLOCK
XH 1
XH 2
760
765
10
15
20
25
30
35
40
45
XPG
SHP
SHD
SP1,SP2,SP3
SH1,SH2
Low Level
SH3
XV 1
XV 2
XV3
XV4
XVCT
PBLK
CLP 1
CLP 2
CLP 3

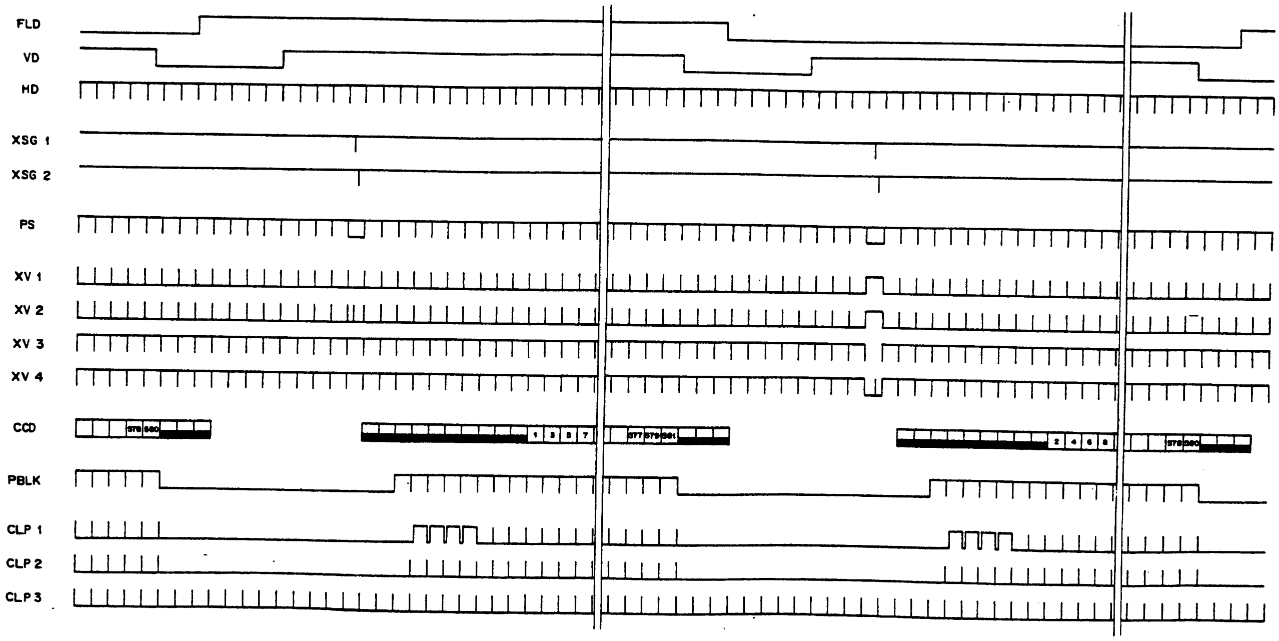
EIA(NTSC,PALM) 1-CHIP COLOR


HD
CLOCK
XH 1
XH 2
760
765
10
15
20
25
30
35
40
45
XPG
SHP
SHD
SP1/SH1
SP2/SH2
SP3/SH3
XV 1
XV2
XV3
XV4
XVCT
PBLK
CLP 1
CLP 2

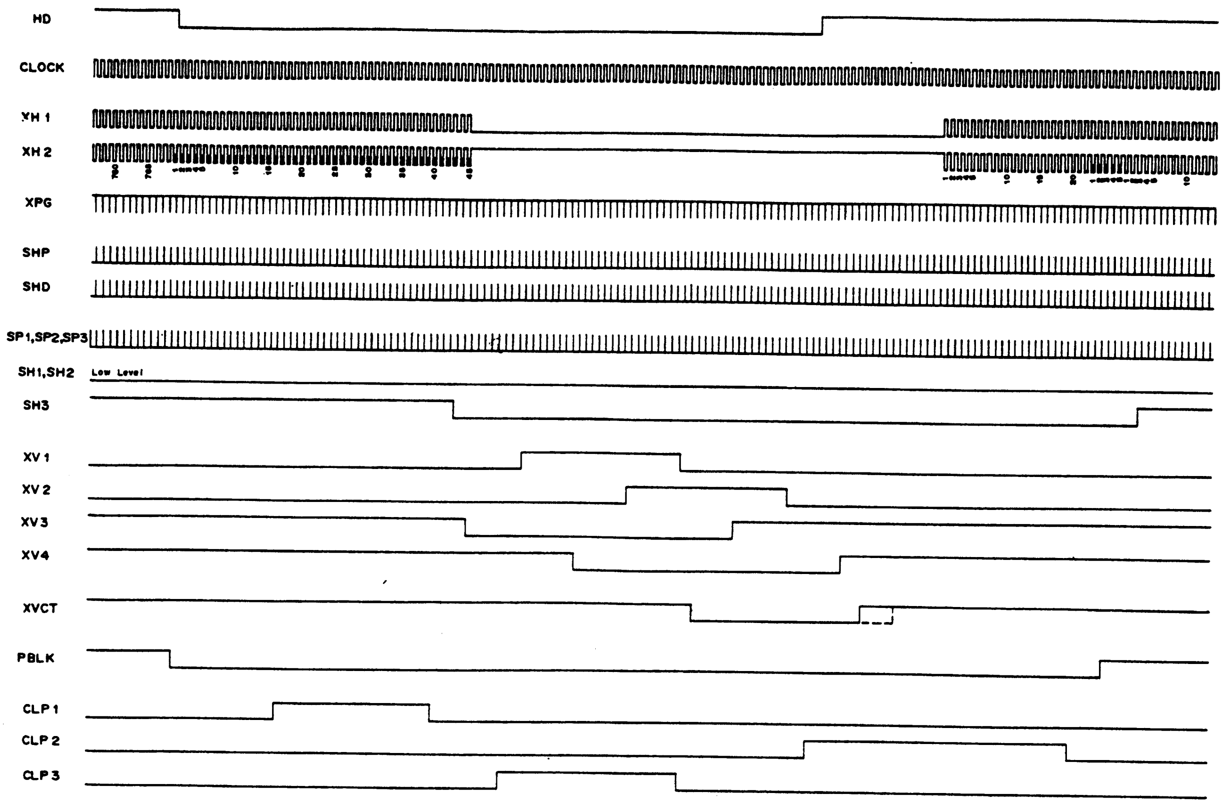
CCIR(PAL,SECAM) B/W,3-CHIP COLOR


FLD
VD
HD
XSG 1
XSG 2
PS
XV 1
XV 2
XV 3
XV 4
FIELD
CCD
578 580
579 581
2 4 6
1 3 5
577 579 581
XV 1
XV 2
XV 3
XV 4
FRAME
CCD
578 580
1 3 5 7
577 579 581
2 4 6 8
PBLK
SH3
CLP 1
CLP 2
CLP 3

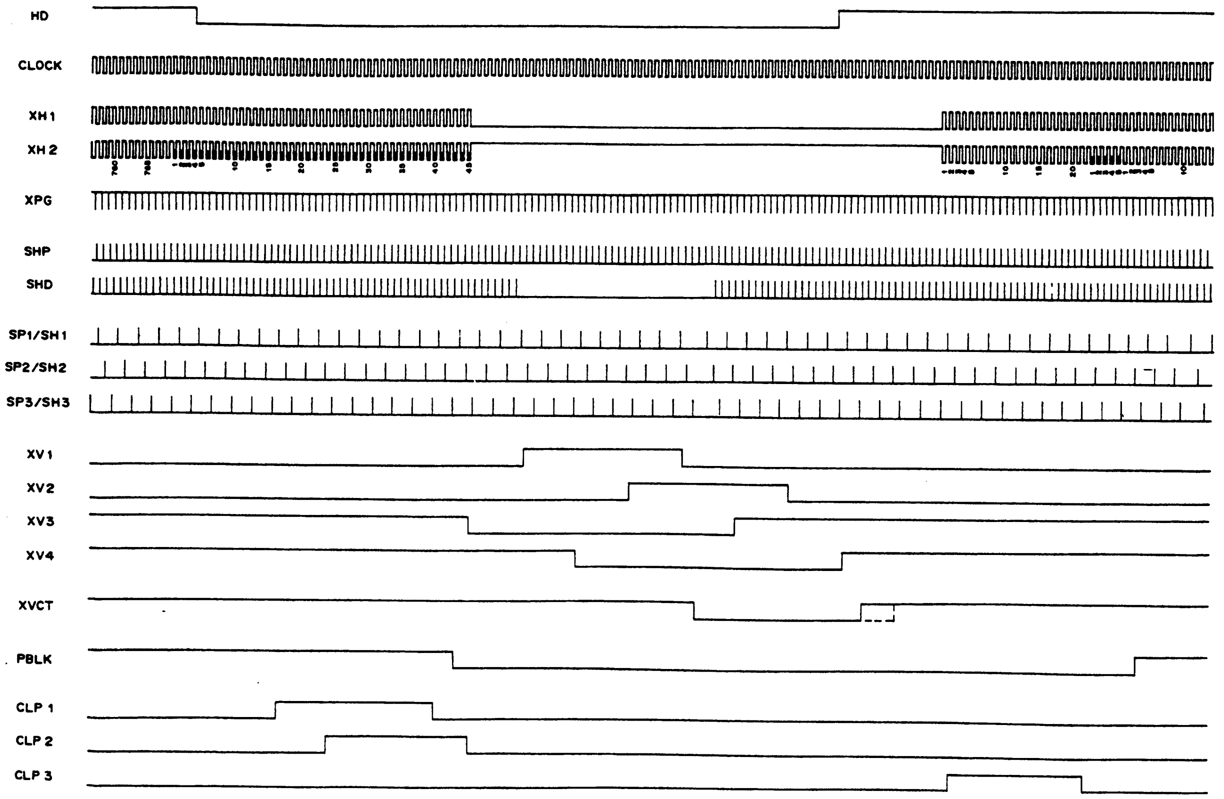
CCIR(PAL,SECAM) 1-CHIP COLOR


FLD
VD
HD
XSG 1
XSG 2
PS
XV 1
XV 2
XV 3
XV 4
CCD
578 580
1 3 5 7
577 579 581
2 4 6 8
PBLK
CLP 1
CLP 2
CLP 3

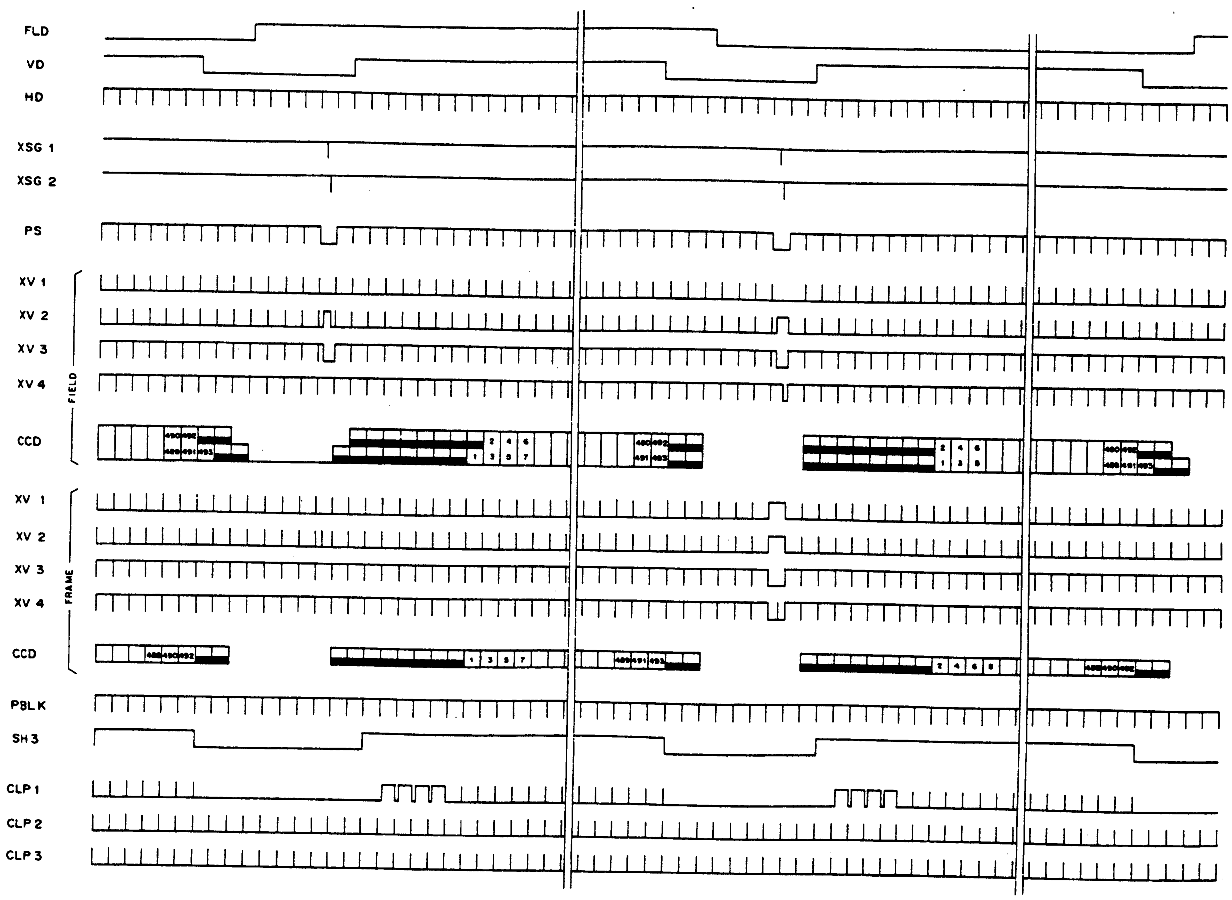
EIA (NTSC, PALM) B/W, 3-CHIP COLOR


HD
CLOCK
XH 1
XH 2
780
785
10
15
20
25
30
35
40
45
10
15
20
10
XPG
SHP
SHD
SP1,SP2,SP3
SH1,SH2
Low Level
SH3
XV 1
XV 2
XV 3
XV4
XVCT
PBLK
CLP 1
CLP 2
CLP 3

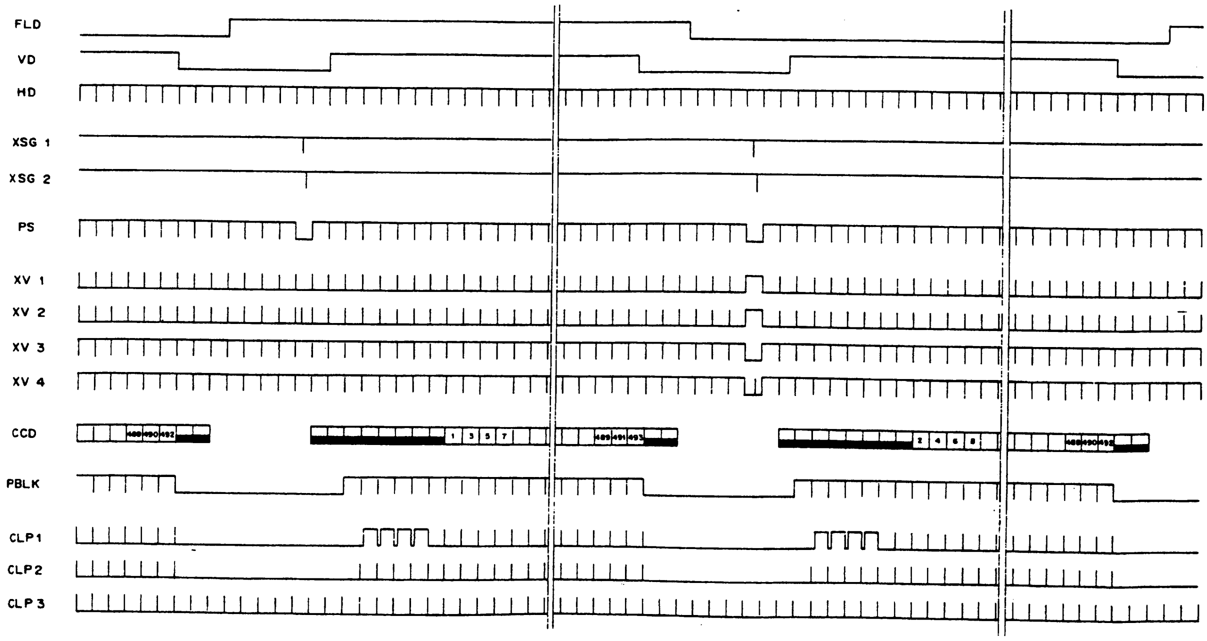
EIA(NTSC,PALM) 1-CHIP COLOR


HD
CLOCK
XH 1
XH 2
780
785
10
15
20
25
30
35
40
45
10
15
20
10
XPG
SHP
SHD
SP1/SH1
SP2/SH2
SP3/SH3
XV 1
XV2
XV3
XV4
XVCT
PBLK
CLP 1
CLP 2
CLP 3

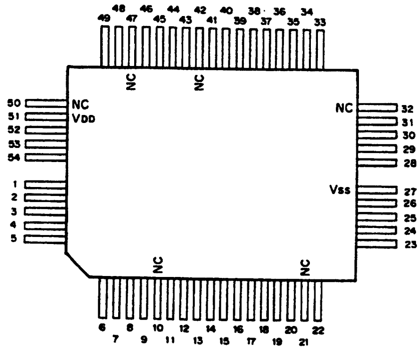
EIA(NTSC,PALM) B/W,3-CHIP COLOR


FLD
VD
HD
XSG 1
XSG 2
PS
XV 1
XV 2
XV 3
XV 4
FIELD
CCD
490 492
489 491 493
2 4 6
1 3 5 7
XV 1
XV 2
XV 3
XV 4
FRAME
CCD
488 490 492
1 3 5 7
489 491 493
2 4 6 8
PBLK
SH3
CLP1
CLP2
CLP3

EIA(NTSC,PALM) 1-CHIP COLOR


FLD
VD
HD
XSG 1
XSG 2
PS
XV 1
XV 2
XV 3
XV 4
CCD
488 490 492
1 3 5 7
489 491 493
2 4 6 8
PBLK
CLP1
CLP2
CLP3

CXD1128Q (SONY) FLAT PACKAGE
C-MOS LCD CONTROLLER/DRIVER
- TOP VIEW -


NC
VDD
NC
NC
NC
Vss
NC
NC
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
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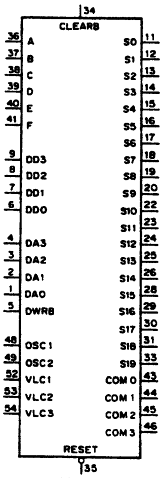
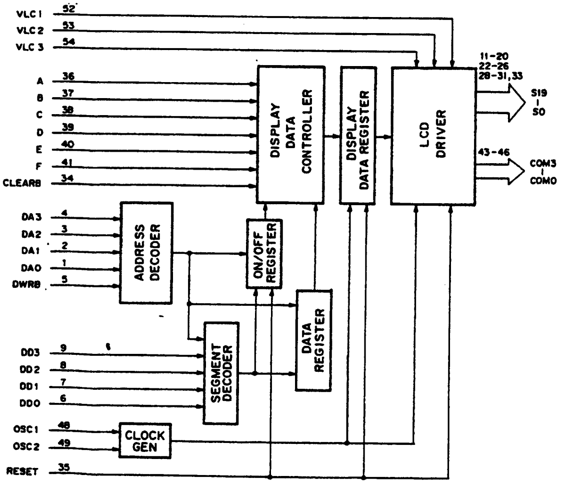
53
54

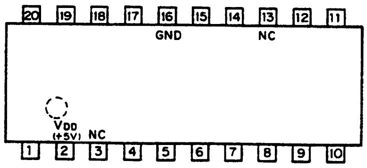
PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	I	DA0	19	O	S8	37	I	B
2	I	DA1	20	O	S9	38	I	C
3	I	DA2	21	–	NC	39	I	D
4	I	DA3	22	O	S10	40	I	E
5	I	DWRB	23	O	S11	41	I	F
6	I	DD0	24	O	S12	42	–	NC
7	I	DD1	25	O	S13	43	O	COM0
8	I	DD2	26	O	S14	44	O	COM1
9	I	DD3	27	–	Vss	45	O	COM2
10	–	NC	28	O	S15	46	O	COM3
11	O	S0	29	O	S16	47	–	NC
12	O	S1	30	O	S17	48	I	OSC1
13	O	S2	31	O	S18	49	O	OSC2
14	O	S3	32	–	NC	50	–	NC
15	O	S4	33	O	S19	51	–	VDD
16	O	S5	34	I	CLEARB	52	I	VLC1
17	O	S6	35	I	RESET	53	I	VLC2
18	O	S7	36	I	A	54	I	VLC3


34
CLEARB
36 A
37 B
38 C
39 D
40 E
41 F
9 DD3
8 DD2
7 DD1
6 DD0
4 DA3
3 DA2
2 DA1
1 DA0
5 DWRB
48 OSC1
49 OSC2
52 VLC1
53 VLC2
54 VLC3
S0 11
S1 12
S2 13
S3 14
S4 15
S5 16
S6 17
S7 18
S8 19
S9 20
S10 22
S11 23
S12 24
S13 25
S14 26
S15 28
S16 29
S17 30
S18 31
S19 33
COM 0 43
COM 1 44
COM 2 45
COM 3 46
RESET
35

A-F ; STATUS INPUT
COM3-0 ; LCD COMMON OUTPUTS
CLEARB ;
DA3-0 ; ADRRESS INPUTS
DD3-0 ; DATA INPUTS
DWRB ; WRITE PULSE INPUT
OSC1,2 ; CR ELEMENT
$\overline{\text{RESET}}$; RESET PULSE INPUT
S19-0 ; LCD SEGMENT OUTPUTS
VLC3-1 ;


VLC1 52
VLC2 53
VLC3 54
A 36
B 37
C 38
D 39
E 40
F 41
CLEARB 34
DA3 4
DA2 3
DA1 2
DA0 1
DWRB 5
DD3 9
DD2 8
DD1 7
DD0 6
OSC1 48
OSC2 49
RESET 35
DISPLAY DATA CONTROLLER
DISPLAY DATA REGISTER
LCD DRIVER
ADDRESS DECODER
ON/OFF REGISTER
DATA REGISTER
SEGMENT DECODER
CLOCK GEN
11-20
22-26
28-31,33
S19
S0
43-46
COM3
COM0

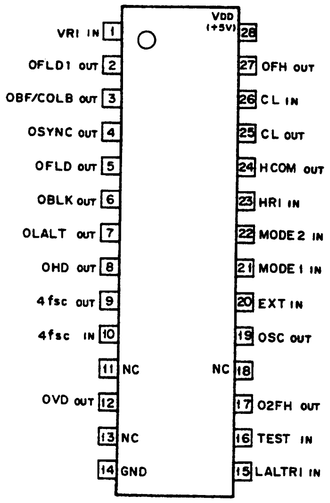
CXD1216M (SONY) FLAT PACKAGE
C-MOS GENLOCK DRIVER
- TOP VIEW-

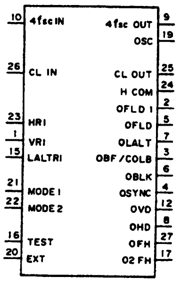

20
19
18
17
16
15
14
13
12
11
GND
NC
VDD (+5V)
NC
1
2
3
4
5
6
7
8
9
10

INPUTS		EXT LOCK MODE	
MODE 1	MODE 2		
0	0	M 1	PAL:VBS
1	0	M 2	PAL-M:VBS
0	1	M 3	PAL:VS/SC/LALT
			SECAM:VS/SC/LALT
1	1	M 4	NTSC:VBS
			NTSC:VS/SC
			PAL-M:VS/SC/LALT

0; LOW LEVEL
1 ; HIGH LEVEL

CXD1217M (SONY) FLAT PACKAGE
C-MOS SYNC GENERATOR
- TOP VIEW -


VRI IN 1
OFLD1 OUT 2
OBF/COLB OUT 3
OSYNC OUT 4
OFLD OUT 5
OBLK OUT 6
OLALT OUT 7
OHD OUT 8
4fsc OUT 9
4fsc IN 10
11 NC
OVD OUT 12
13 NC
14 GND
VDD (+5V) 28
27 OFH OUT
26 CL IN
25 CL OUT
24 HCOM OUT
23 HRI IN
22 MODE 2 IN
21 MODE 1 IN
20 EXT IN
19 OSC OUT
NC 18
17 O2FH OUT
16 TEST IN
15 LALTRI IN


10 4fsc IN
26 CL IN
23 HRI
1 VRI
15 LALTRI
21 MODE 1
22 MODE 2
16 TEST
20 EXT
4fsc OUT 9
OSC 19
CL OUT 25
H COM 24
OFLD 1 2
OFLD 5
OLALT 7
OBF/COLB 3
OBLK 6
OSYNC 4
OVD 12
OHD 8
OFH 27
O2 FH 17

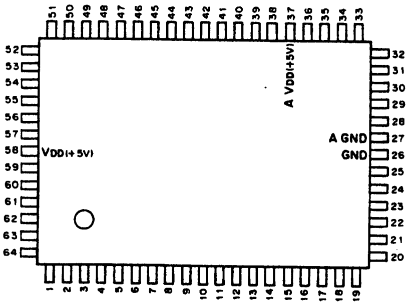
SYSTEM	4fsc	CLOCK
NTSC	$910f_H$	$910f_H$
PAL	$1135f_H+2f_V$	$908f_H$
PALM	$909f_H$	$910f_H$
SECAM	—	$908f_H$

INPUT		SYSTEM
MODE1	MODE2	
0	0	NTSC
0	1	SECAM
1	0	PALM
1	1	PAL

0 ; LOW LEVEL
1 ; HIGH LEVEL

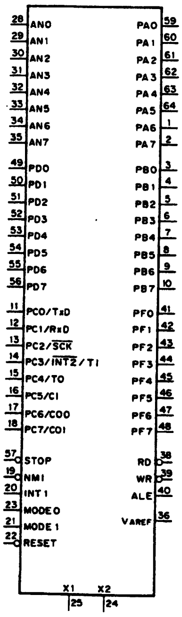
CXD8042Q (SONY) FLAT PACKAGE

C-MOS TIMECODE CONTROLLER
- TOP VIEW -


A VDD(+5V)
A GND
GND
VDD(+5V)

(A V_{DD} = + 5V)
(V_{DD} = + 5V)

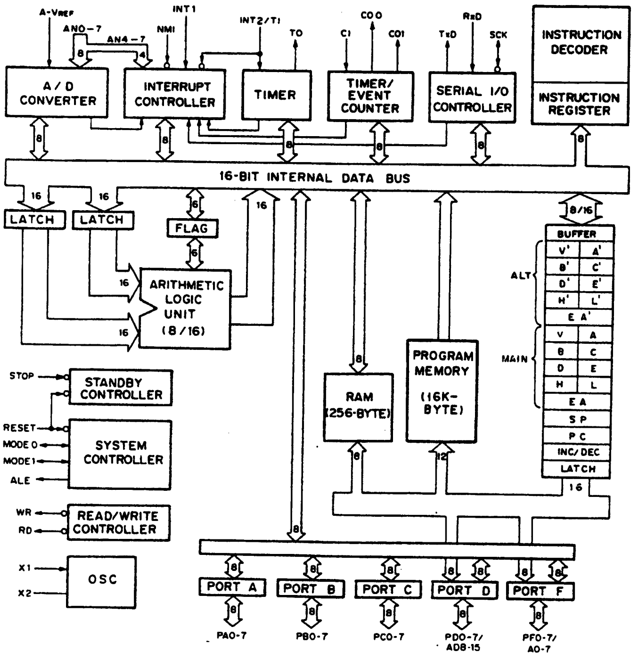
PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I/O	PA6	17	I/O	PC6/CO0	33	I	AN5	49	I/O	PD0
2	I/O	PA7	18	I/O	PC7/CO1	34	I	AN6	50	I/O	PD1
3	I/O	PB0	19	I	$\overline{\text{NMI}}$	35	I	AN7	51	I/O	PD2
4	I/O	PB1	20	I	INT1	36	I	V_{AREF}	52	I/O	PD3
5	I/O	PB2	21	I/O	MODE1	37	–	A V_{DD}	53	I/O	PD4
6	I/O	PB3	22	I	$\overline{\text{RESET}}$	38	O	$\overline{\text{RD}}$	54	I/O	PD5
7	I/O	PB4	23	I/O	MODE0	39	O	$\overline{\text{WR}}$	55	I/O	PD6
8	I/O	PB5	24	I	X2	40	O	ALE	56	I/O	PD7
9	I/O	PB6	25	I	X1	41	I/O	PF0	57	I	$\overline{\text{STOP}}$
10	I/O	PB7	26	–	GND	42	I/O	PF1	58	–	V_{DD}
11	I/O	PC0/TxD	27	–	A GND	43	I/O	PF2	59	I/O	PA0
12	I/O	PC1/RxD	28	I	AN0	44	I/O	PF3	60	I/O	PA1
13	I/O	PC2/$\overline{\text{SCK}}$	29	I	AN1	45	I/O	PF4	61	I/O	PA2
14	I/O	PC3/$\overline{\text{INT2}}$/TI	30	I	AN2	46	I/O	PF5	62	I/O	PA3
15	I/O	PC4/TO	31	I	AN3	47	I/O	PF6	63	I/O	PA4
16	I/O	PC5/CI	32	I	AN4	48	I/O	PF7	64	I/O	PA5


AN0
AN1
AN2
AN3
AN4
AN5
AN6
AN7
PD0
PD1
PD2
PD3
PD4
PD5
PD6
PD7
PC0/TxD
PC1/RxD
PC2/SCK
PC3/INT2/TI
PC4/TO
PC5/CI
PC6/CO0
PC7/CO1
STOP
NMI
INT1
MODE0
MODE1
RESET
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PF0
PF1
PF2
PF3
PF4
PF5
PF6
PF7
RD
WR
ALE
VAREF
X1
X2

INPUT
AN0-7 ; ANALOG
CI ; COUNTER
INT1 ; MASKABLE INTERRUPT REQUEST 1
INT2/T1 ; MASKABLE INTERRUPT REQUEST 2/TIMER
NMI ; NON-MASKABLE INTERRUPT
RxD ; RECEIVE DATA
RESET ; SYSTEM RESET
STOP ; SYSTEM STOP
V_{AREF} ; REFERENCE VOLTAGE
X1,2 ; EXTERNAL X'tal

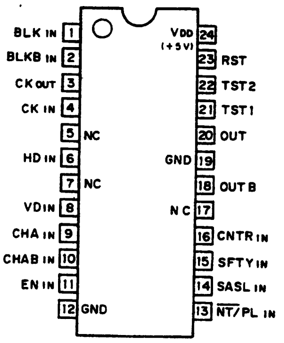
OUTPUT
ALE ; ADDRESS LATCH ENABLE
CO0,1 ; COUNTER OUTPUT 0,1
RD ; READ STROBE
TO ; TIMER
TxD ; TRANSMIT DATA
WR ; WRITE STROBE

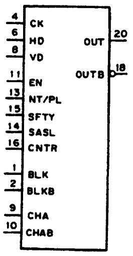
INPUT/OUTPUT
MODE 0,1 ; MEMORY MODE 0,1
PA0-7 ; PORT A
PB0-7 ; PORT B
PC0-7 ; PORT C
PD0-7 ; PORT D
PF0-7 ; PORT F
SCK ; SERIAL CLOCK


A-VREF
AN0-7
AN4-7
NMI
INT1
INT2/TI
TO
CI
CO0
CO1
RxD
TxD
SCK
A/D CONVERTER
INTERRUPT CONTROLLER
TIMER
TIMER/EVENT COUNTER
SERIAL I/O CONTROLLER
INSTRUCTION DECODER
INSTRUCTION REGISTER
16-BIT INTERNAL DATA BUS
LATCH
LATCH
FLAG
ARITHMETIC LOGIC UNIT (8/16)
BUFFER
ALT
MAIN
V' A'
B' C'
D' E'
H' L'
E A'
V A
B C
D E
H L
EA
SP
PC
INC/DEC
LATCH
STOP
STANDBY CONTROLLER
RESET
MODE 0
MODE 1
ALE
SYSTEM CONTROLLER
WR
RD
READ/WRITE CONTROLLER
X1
X2
OSC
RAM (256-BYTE)
PROGRAM MEMORY (16K-BYTE)
PORT A
PORT B
PORT C
PORT D
PORT F
PA0-7
PB0-7
PC0-7
PD0-7/AD0-15
PF0-7/A0-7
8
16
8/16
12

CXD8154AM (SONY)
CXD8154BM (SONY)

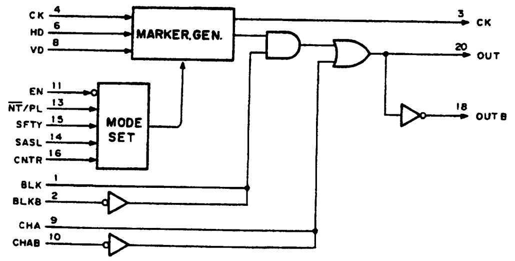
C-MOS GATE ARRAY
- TOP VIEW -


BLK IN 1
BLKB IN 2
CK OUT 3
CK IN 4
5 NC
HD IN 6
7 NC
VD IN 8
CHA IN 9
CHAB IN 10
EN IN 11
12 GND
VDD (+5V) 24
23 RST
22 TST2
21 TST1
20 OUT
GND 19
18 OUT B
NC 17
16 CNTR IN
15 SFTY IN
14 SASL IN
13 NT/PL IN


CK
HD
VD
EN
NT/PL
SFTY
SASL
CNTR
BLK
BLKB
CHA
CHAB
OUT
OUTB

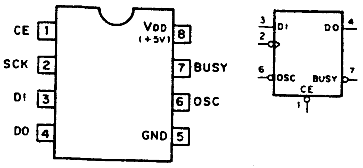
INPUT
BLK ; BLKG IN
BLKB ; $\overline{\text{BLKG}}$ IN
CHA ; CHR IN
CHAB ; $\overline{\text{CHR}}$ IN
CK ; CLOCK IN
CNTR ; CENTER $\overline{\text{ON}}$/OFF
EN ; ENABLE IN
HD ; HORIZONTAL DRIVE IN
$\overline{\text{NT}}$/PL ; $\overline{\text{NTSC}}$/PAL
RST ; RESET
SASL ; SAFETY $\overline{80}$/90
SFTY ; SAFETY $\overline{\text{ON}}$/OFF
VD ; VERTICAL DRIVE IN
TST1 ; TEST 1
TST2 ; TEST 2

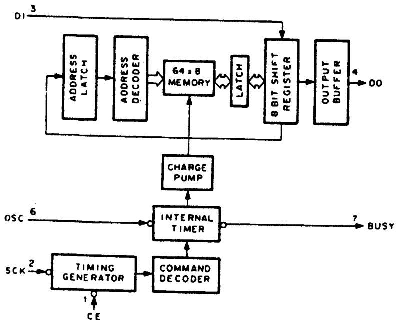
OUTPUT
OUT ; OUTPUT
OUTB ; $\overline{\text{OUTPUT}}$
CKO ; CLOCK OUT


CK 4
HD 6
VD 8
MARKER.GEN.
EN 11
NT/PL 13
SFTY 15
SASL 14
CNTR 16
MODE SET
BLK 1
BLKB 2
CHA 9
CHAB 10
3 CK
20 OUT
18 OUTB

CXK1011P (SONY)

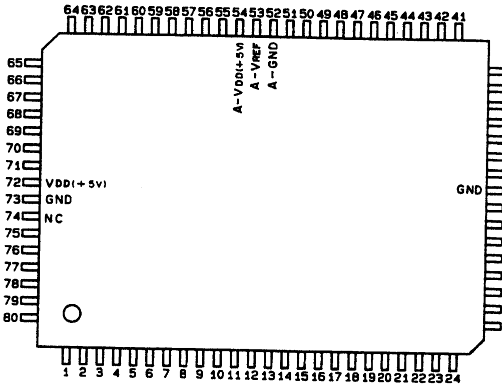
N-MOS 512-BIT (64X8) NON-VOLATILE MEMORY
- TOP VIEW -


CE 1
SCK 2
DI 3
DO 4
VDD (+5V) 8
7 BUSY
6 OSC
GND 5
3 DI
DO 4
2
6 OSC
BUSY 7
CE
1


DI 3
ADDRESS LATCH
ADDRESS DECODER
64 x 8 MEMORY
LATCH
8 BIT SHIFT REGISTER
OUTPUT BUFFER
4 DO
CHARGE PUMP
OSC 6
INTERNAL TIMER
7 BUSY
SCK 2
TIMING GENERATOR
COMMAND DECODER
1
CE

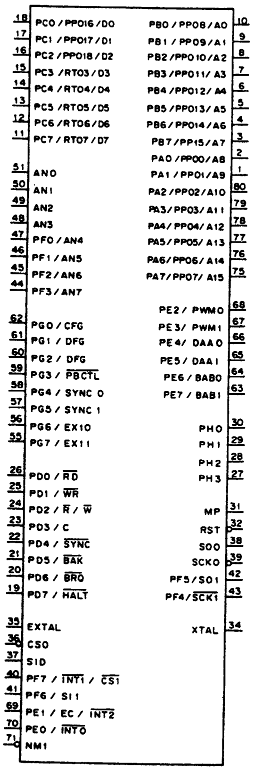
CXP80116 (SONY) FLAT PACKAGE

C-MOS 8-BIT MICROCOMPUTER
- TOP VIEW -


64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41
A-VDD(+5V)
A-VREF
A-GND
65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
VDD(+5V)
GND
NC
40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25
GND
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

(V_{DD} = + 5V)

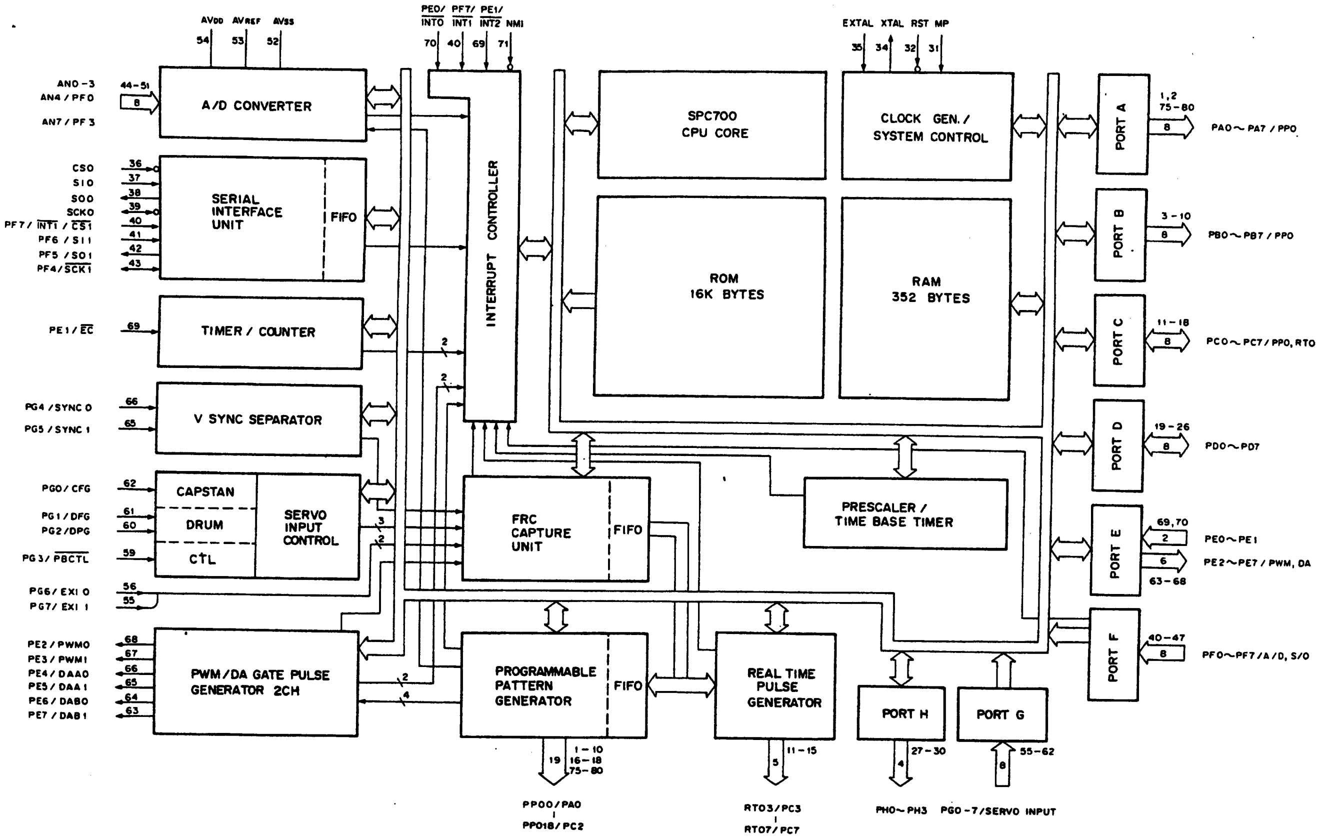
PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	O	PA1/PPO1/A9	41	I	PF6/SI1
2	O	PA0/PPO0/A8	42	I/O	PF5/SO1
3	O	PB7/PPO15/A7	43	I,I/O	PF4/$\overline{\text{SCK1}}$
4	O	PB6/PPO14/A6	44	I	PF3/AN7
5	O	PB5/PPO13/A5	45	I	PF2/AN6
6	O	PB4/PPO12/A4	46	I	PF1/AN5
7	O	PB3/PPO11/A3	47	I	PF0/AN4
8	O	PB2/PPO10/A2	48	I	AN3
9	O	PB1/PPO9/A1	49	I	AN2
10	O	PB0/PPO8/A0	50	I	AN1
11	I/O,O,I/O	PC7/RTO7/D7	51	I	AN0
12	I/O,O,I/O	PC6/RTO6/D6	52	–	A-GND
13	I/O,O,I/O	PC5/RTO5/D5	53	–	A-V_{REF}
14	I/O,O,I/O	PC4/RTO4/D4	54	–	A-V_{DD}
15	I/O,O,I/O	PC3/RTO3/D3	55	I	PG7/EXI1
16	I/O,O,I/O	PC2/PPO18/D2	56	I	PG6/EXI0
17	I/O,O,I/O	PC1/PPO17/D1	57	I	PG5/SYNC1
18	I/O,O,I/O	PC0/PPO16/D0	58	I	PG4/SYNC0
19	I/O,O	PD7/$\overline{\text{HALT}}$	59	I	PG3/$\overline{\text{PBCTL}}$
20	I/O,O	PD6/$\overline{\text{BRQ}}$	60	I	PG2/DPG
21	I/O,O	PD5/$\overline{\text{BAK}}$	61	I	PG1/DFG
22	I/O,O	PD4/$\overline{\text{SYNC}}$	62	I	PG0/CFG
23	I/O,O	PD3/C	63	O	PE7/DAB1
24	I/O,O	PD2/R/$\overline{\text{W}}$	64	O	PE6/DAB0
25	I/O,O	PD1/$\overline{\text{WR}}$	65	O	PE5/DAA1
26	I/O,O	PD0/$\overline{\text{RD}}$	66	O	PE4/DAA0
27	O	PH3	67	O	PE3/PWM1
28	O	PH2	68	O	PE2/PWM0
29	O	PH1	69	I	PE1/$\overline{\text{EC}}$/$\overline{\text{INT2}}$
30	O	PH0	70	I	PE0/$\overline{\text{INT0}}$
31	I	MP	71	I	$\overline{\text{NMI}}$
32	I/O	RST	72	–	V_{DD}
33	–	GND	73	–	GND
34	O	XTAL	74	–	NC
35	I	EXTAL	75	O	PA7/PPO7/A15
36	I	CS0	76	O	PA6/PPO6/A14
37	I	SI0	77	O	PA5/PPO5/A13
38	O	SO0	78	O	PA4/PPO4/A12
39	I/O	SCK0	79	O	PA3/PPO3/A11
40	I	PF7/$\overline{\text{INT1}}$/$\overline{\text{CS1}}$	80	O	PA2/PPO2/A10


18 PC0/PPO16/D0
17 PC1/PPO17/D1
16 PC2/PPO18/D2
15 PC3/RTO3/D3
14 PC4/RTO4/D4
13 PC5/RTO5/D5
12 PC6/RTO6/D6
11 PC7/RTO7/D7
51 AN0
50 AN1
49 AN2
48 AN3
47 PF0/AN4
46 PF1/AN5
45 PF2/AN6
44 PF3/AN7
62 PG0/CFG
61 PG1/DFG
60 PG2/DFG
59 PG3/PBCTL
58 PG4/SYNC 0
57 PG5/SYNC 1
56 PG6/EX10
55 PG7/EX11
26 PD0/RD
25 PD1/WR
24 PD2/R/W
23 PD3/C
22 PD4/SYNC
21 PD5/BAK
20 PD6/BRQ
19 PD7/HALT
35 EXTAL
36 CS0
37 SID
40 PF7/INT1/CS1
41 PF6/SI1
69 PE1/EC/INT2
70 PE0/INT0
71 NM1
PB0/PPO8/A0 10
PB1/PPO9/A1 9
PB2/PPO10/A2 8
PB3/PPO11/A3 7
PB4/PPO12/A4 6
PB5/PPO13/A5 5
PB6/PPO14/A6 4
PB7/PP15/A7 3
PA0/PPO0/A8 2
PA1/PPO1/A9 1
PA2/PPO2/A10 80
PA3/PPO3/A11 79
PA4/PPO4/A12 78
PA5/PPO5/A13 77
PA6/PPO6/A14 76
PA7/PPO7/A15 75
PE2/PWM0 68
PE3/PWM1 67
PE4/DAA0 66
PE5/DAA1 65
PE6/BAB0 64
PE7/BAB1 63
PH0 30
PH1 29
PH2 28
PH3 27
MP 31
RST 32
SO0 38
SCK0 39
PF5/SO1 42
PF4/SCK1 43
XTAL 34

INPUT
AN0 – AN7 : ANALOG INPUTS
BRQ . BUS REQUEST INPUT
CFG : CAPSTAN FG INPUT
CS0.1 . CHIP SELECT INPUTS
DFG : DRUM FG INPUT
DPG : DRUM PG INPUT
EC : EVENT INPUT
EXI0.1 : EXTERNAL INPUTS
EXTAL : SYSTEM CLOCK GENERATE JOINT
HALT : CPU STOP INPUT
INT0 – INT2 . EXTERNAL OFFERING INPUTS
MP : MICRO PROSESSOR MODE INPUT
NMI : NONMASKABLE OFFERING INPUT
PBCTL : PB CTL PULSE INPUT
PE0.1 : PORT E INPUTS
PF0 – PF7 : PORT F INPUTS
PG0 – PG7 : PORT G INPUTS
SI0.1 : SERIAL DATA INPUTS
SYNC0.1 : COMPOSITE SYNC INPUTS

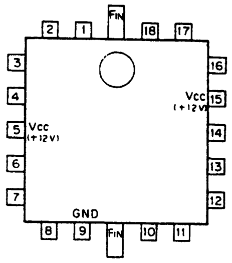
OUTPUT
A0 – A15 : ADDRESS BUS OUTPUTS
BAK : BUS ACKNOWLEGE OUTPUT
C . TIMING SIGNAL OUTPUT
DAA0.1 : DA GATE PULSE OUTPUTS
DAB0.1 : DA GATE PULSE OUTPUTS
PA0 – PA7 : PORT A OUTPUTS
PB0 – PB7 : PORT B OUTPUTS
PE2 – PE7 : PORT E OUTPUTS
PH0 – PH3 : PORT H OUTPUTS
PPO0 – PPO18 : PROGRAMMABLE PATTERN GENERATOR OUTPUTS
PWM0.1 : PWM OUTPUTS
R/W : CPU MACHINE SYCLE
RD : READ
RTO3 – RTO7 : REAL TIME PULSE OUTPUTS
SO0.1 : SERIAL DATA OUTPUTS
SYNC : SYNC
WR : WRITE
XTAL : SYSTEM CLOCK GENERATER OUTPUT

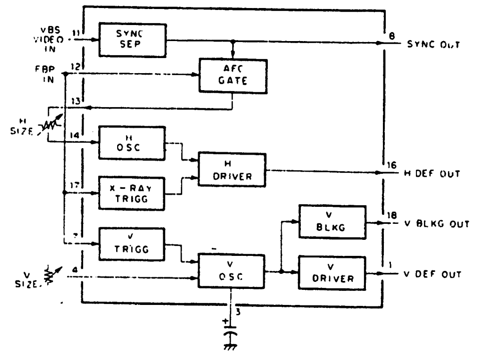
INPUT/OUTPUT
D0 – D7 : DATA BUS –
PC0 – PC7 : PORT C
PD0 – PD7 : PORT D
RST : RESET
SCK0.1 : SERIAL CLOCK


AVDD AVREF AVSS
54 53 52
PE0/INT0 PF7/INT1 PE1/INT2 NMI
70 40 69 71
EXTAL XTAL RST MP
35 34 32 31
AN0-3
AN4/PF0
AN7/PF3
44-51
8
A/D CONVERTER
CS0
SI0
SO0
SCK0
PF7/INT1/CS1
PF6/SI1
PF5/SO1
PF4/SCK1
36
37
38
39
40
41
42
43
SERIAL INTERFACE UNIT
FIFO
PE1/EC
69
TIMER / COUNTER
PG4/SYNC 0
PG5/SYNC 1
66
65
V SYNC SEPARATOR
PG0/CFG
PG1/DFG
PG2/DPG
PG3/PBCTL
62
61
60
59
CAPSTAN
DRUM
CTL
SERVO INPUT CONTROL
PG6/EXI 0
PG7/EXI 1
56
55
PE2/PWM0
PE3/PWM1
PE4/DAA0
PE5/DAA1
PE6/DAB0
PE7/DAB1
68
67
66
65
64
63
PWM/DA GATE PULSE GENERATOR 2CH
INTERRUPT CONTROLLER
SPC700 CPU CORE
CLOCK GEN. / SYSTEM CONTROL
ROM 16K BYTES
RAM 352 BYTES
FRC CAPTURE UNIT
FIFO
PRESCALER / TIME BASE TIMER
PROGRAMMABLE PATTERN GENERATOR
FIFO
REAL TIME PULSE GENERATOR
PORT H
PORT G
PORT A
PORT B
PORT C
PORT D
PORT E
PORT F
1,2 75-80
PA0~PA7/PP0
3-10
PB0~PB7/PPO
11-18
PC0~PC7/PPO, RTO
19-26
PD0~PD7
69,70
PE0~PE1
PE2~PE7/PWM, DA
63-68
40-47
PF0~PF7/A/D, S/O
1-10
19 16-18
75-80
PP00/PA0
PP018/PC2
11-15
RTO3/PC3
RTO7/PC7
27-30
PH0~PH3
55-62
PG0-7/SERVO INPUT
2
3
4
5
6
8

HA11423MP (HITACHI) FLAT PACKAGE

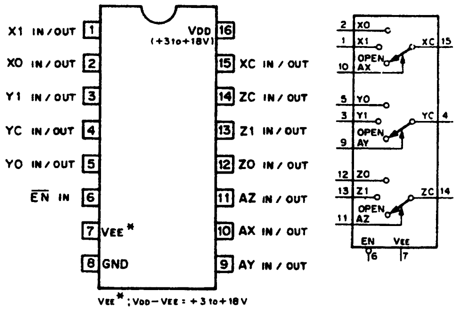
TV H/V SYNC SIGNAL PROCESSOR
- TOP VIEW -


FIN
2
1
18
17
3
4
5
6
7
16
15
14
13
12
Vcc (+12V)
Vcc (+12V)
GND
8
9
FIN
10
11


VBS VIDEO IN
11
SYNC SEP
8
SYNC OUT
FBP IN
12
AFC GATE
13
H SIZE
14
H OSC
H DRIVER
16
H DEF OUT
17
X-RAY TRIGG
7
V TRIGG
V BLKG
18
V BLKG OUT
V SIZE
4
V OSC
V DRIVER
1
V DEF OUT
3

HD14053BFP (HITACHI) FLAT PACKAGE

C-MOS TRIPLE 2-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS
- TOP VIEW -


X1 IN/OUT 1
X0 IN/OUT 2
Y1 IN/OUT 3
YC IN/OUT 4
Y0 IN/OUT 5
EN IN 6
7 VEE*
8 GND
VDD (+3to+18V) 16
15 XC IN/OUT
14 ZC IN/OUT
13 Z1 IN/OUT
12 Z0 IN/OUT
11 AZ IN/OUT
10 AX IN/OUT
9 AY IN/OUT
2 X0
1 X1
XC 15
10 OPEN AX
5 Y0
3 Y1
YC 4
9 OPEN AY
12 Z0
13 Z1
ZC 14
11 OPEN AZ
EN VEE
6 7

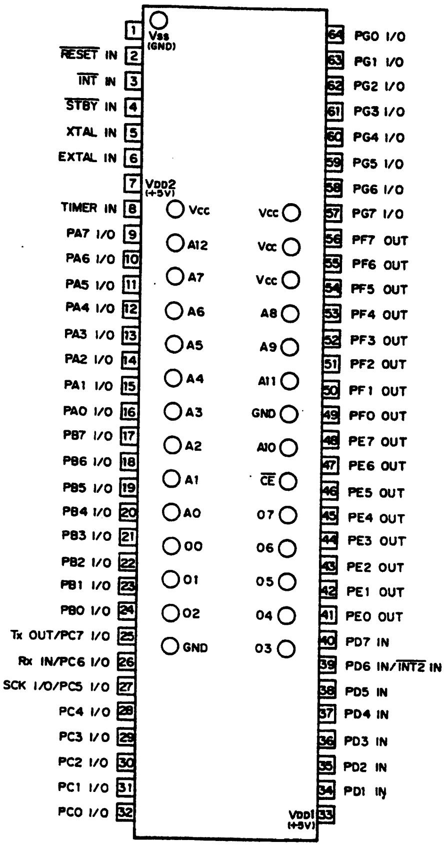
VEE*; VDD−VEE : +3 to +18V

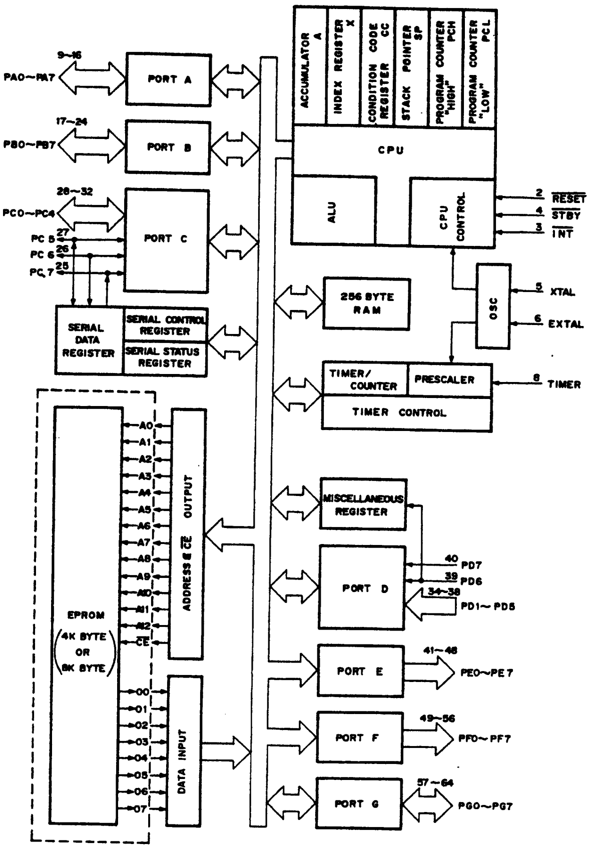
0 ; LOW LEVEL
1 , HIGH LEVEL
X ; DON'T CARE.

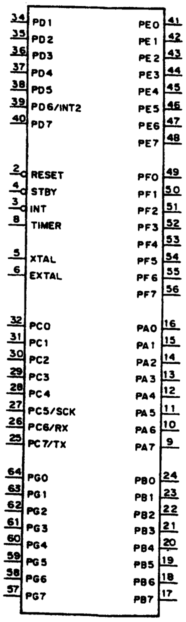
CONT. INPUTS		ON
EN	A (X,Y,Z,)	CHANNEL
0	0	0
0	1	1
1	X	OPEN

HD63P05Y0 (HITACHI) (INSTRUCTION CYCLE = 1 uS ; fck = 4MHz)

C-MOS 8-BIT MICROCOMPUTER UNIT
- TOP VIEW -


1 Vss (GND)
RESET IN 2
INT IN 3
STBY IN 4
XTAL IN 5
EXTAL IN 6
7 VDD2 (+5V)
TIMER IN 8
PA7 I/O 9
PA6 I/O 10
PA5 I/O 11
PA4 I/O 12
PA3 I/O 13
PA2 I/O 14
PA1 I/O 15
PA0 I/O 16
PB7 I/O 17
PB6 I/O 18
PB5 I/O 19
PB4 I/O 20
PB3 I/O 21
PB2 I/O 22
PB1 I/O 23
PB0 I/O 24
Tx OUT/PC7 I/O 25
Rx IN/PC6 I/O 26
SCK I/O/PC5 I/O 27
PC4 I/O 28
PC3 I/O 29
PC2 I/O 30
PC1 I/O 31
PC0 I/O 32
VDD1 (+5V) 33
34 PD1 IN
35 PD2 IN
36 PD3 IN
37 PD4 IN
38 PD5 IN
39 PD6 IN/INT2 IN
40 PD7 IN
41 PE0 OUT
42 PE1 OUT
43 PE2 OUT
44 PE3 OUT
45 PE4 OUT
46 PE5 OUT
47 PE6 OUT
48 PE7 OUT
49 PF0 OUT
50 PF1 OUT
51 PF2 OUT
52 PF3 OUT
53 PF4 OUT
54 PF5 OUT
55 PF6 OUT
56 PF7 OUT
57 PG7 I/O
58 PG6 I/O
59 PG5 I/O
60 PG4 I/O
61 PG3 I/O
62 PG2 I/O
63 PG1 I/O
64 PG0 I/O
Vcc
A12
A7
A6
A5
A4
A3
A2
A1
A0
O0
O1
O2
GND
Vcc
Vcc
Vcc
A8
A9
A11
GND
A10
CE
O7
O6
O5
O4
O3

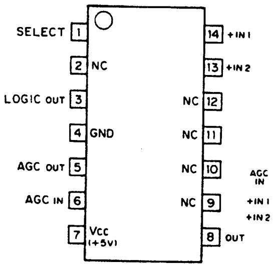

9~16
PA0~PA7
PORT A
17~24
PB0~PB7
PORT B
28~32
PC0~PC4
PC 5 27
PC 6 26
PC 7 25
PORT C
SERIAL DATA REGISTER
SERIAL CONTROL REGISTER
SERIAL STATUS REGISTER
ACCUMULATOR A
INDEX REGISTER X
CONDITION CODE REGISTER CC
STACK POINTER SP
PROGRAM COUNTER "HIGH" PCH
PROGRAM COUNTER "LOW" PCL
CPU
ALU
CPU CONTROL
2 RESET
4 STBY
3 INT
256 BYTE RAM
OSC
5 XTAL
6 EXTAL
TIMER/COUNTER
PRESCALER
TIMER CONTROL
8 TIMER
EPROM (4K BYTE OR 8K BYTE)
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
CE
ADDRESS & CE OUTPUT
00
01
02
03
04
05
06
07
DATA INPUT
MISCELLANEOUS REGISTER
PORT D
40 PD7
39 PD6
34~38 PD1~PD5
PORT E
41~48
PE0~PE7
PORT F
49~56
PF0~PF7
PORT G
57~64
PG0~PG7

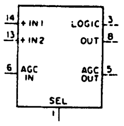

34 PD1
35 PD2
36 PD3
37 PD4
38 PD5
39 PD6/INT2
40 PD7
2 RESET
4 STBY
3 INT
8 TIMER
5 XTAL
6 EXTAL
32 PC0
31 PC1
30 PC2
29 PC3
28 PC4
27 PC5/SCK
26 PC6/RX
25 PC7/TX
64 PG0
63 PG1
62 PG2
61 PG3
60 PG4
59 PG5
58 PG6
57 PG7
PE0 41
PE1 42
PE2 43
PE3 44
PE4 45
PE5 46
PE6 47
PE7 48
PF0 49
PF1 50
PF2 51
PF3 52
PF4 53
PF5 54
PF6 55
PF7 56
PA0 16
PA1 15
PA2 14
PA3 13
PA4 12
PA5 11
PA6 10
PA7 9
PB0 24
PB1 23
PB2 22
PB3 21
PB4 20
PB5 19
PB6 18
PB7 17

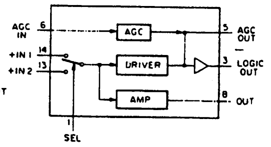
PA0~PA7 ; 8-BIT I/O PORT A
PB0~PB7 ; 8-BIT I/O PORT B
PC0~PC7 ; 8-BIT I/O PORT C
PD1~PD7 ; 7-BIT IN PORT D
PE0~PE7 ; 8-BIT OUT PORT E
PF0~PF7 ; 8-BIT OUT PORT F
PG0~PG7 ; 8-BIT I/O PORT G
RESET ; RESET IN
STBY ; STANDBY IN
INT ; INTERRUPT IN
INT2 ; INTERRUPT IN
TIMER ; TIMER CONTROL IN
TIMER2 ; TIMER CONTROL IN
XTAL ; CRYSTAL
EXTAL ; EXTERNAL CRYSTAL IN
SCK ; SERIAL INTERFACE CLOCK I/O
RX ; SERIAL DATA RECEIVE
TX ; SERIAL DATA TRANSMIT

LA7205M (SANYO) FLAT PACKAGE

TAPE TOP/END DETECTOR
- TOP VIEW -

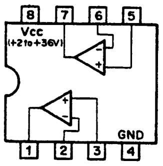

SELECT 1
2 NC
LOGIC OUT 3
4 GND
AGC OUT 5
AGC IN 6
7 Vcc (+5V)
8 OUT
NC 9
NC 10
NC 11
NC 12
13 +IN2
14 +IN1


14 +IN1
13 +IN2
6 AGC IN
LOGIC OUT 3
8
AGC OUT 5
SEL
1


AGC IN 6
+IN1 14
+IN2 13
AGC
DRIVER
AMP
5 AGC OUT
3 LOGIC OUT
8 OUT
1 SEL

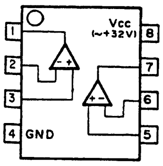
LM2903M (RAYTHEON) FLAT PACKAGE

DUAL VOLTAGE COMPARATORS
- TOP VIEW -


8
7
6
5
Vcc
(+2to+36V)
GND
1
2
3
4

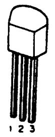
LM2904M (NSC) FLAT PACKAGE

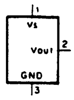
OPERATIONAL AMPLIFIER
- TOP VIEW -

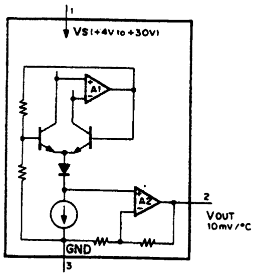

Vcc
(~+32V)
1
2
3
4
GND
8
7
6
5

LM35DZ (NS)

BIPOLAR TEMPERATURE SENSOR

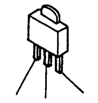


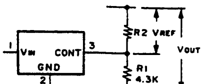

1
Vs
Vout
2
GND
3


1
Vs(+4V to +30V)
A1
A2
2
Vout
10mV/°C
GND
3

M5237ML (MITSUBISHI)

ADJUSTABLE VOLTAGE REGULATOR


CONT (3)
GND (2)
VIN (1)


1
VIN
CONT
3
GND
2
R2
VREF
VOUT
R1
4.3K

$V_{IN} = 3.5V \sim 36V$

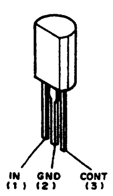
$V_{OUT} = 1.5V \sim 33V$

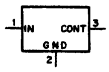
$V_{OUT} = V_{REF}(1+\frac{R2}{R1}) \fallingdotseq 1.26 \times (1+\frac{R2}{4.3})(V)$

$(R1 = 4.3K\Omega,\ V_{REF} \fallingdotseq 1.26V)$

M5237L (MITSUBISHI)

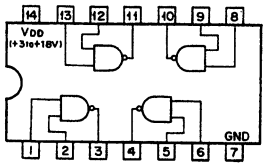
ADJUSTABLE VOLTAGE REGULATOR

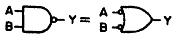

IN (1)
GND (2)
CONT (3)


1
IN
CONT
3
GND
2

MC14011BF (MOTOROLA) FLAT PACKAGE

C-MOS 2-INPUT NAND GATE
- TOP VIEW -


14
13
12
11
10
9
8
VDD
(+3to+18V)
GND
1
2
3
4
5
6
7



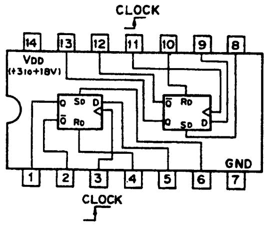
$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

0: LOW LEVEL
1: HIGH LEVEL

MC14013BF (MOTOROLA) FLAT PACKAGE

C-MOS D-TYPE FLIP-FLOP WITH DIRECT SET/RESET
- TOP VIEW -


CLOCK
14
13
12
11
10
9
8
VDD
(+3to+18V)
Q
SD
D
Q̄
RD
Q̄
RD
Q
SD
D
GND
1
2
3
4
5
6
7
CLOCK

DIRECT R-S FLIP FLOP

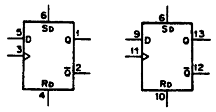
SD	RD	Q	$\overline{Q}$
0	0	Qn	$\overline{Qn}$
0	1	0	1
1	0	1	0
1	1	1	1

0: LOW LEVEL
1: HIGH LEVEL

D-TYPE FLIP FLOP

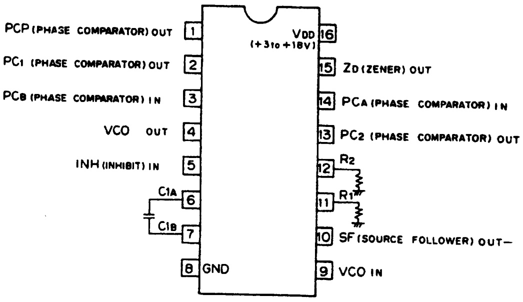
CKn	CKn+1
D	Q
0	0
1	1

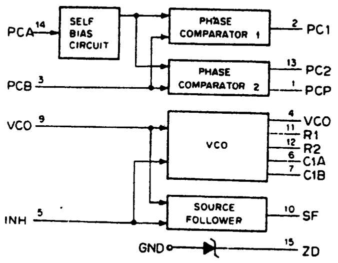
CLOCK CK; ⎍
CKn; BEFORE CLOCK
CKn+1; AFTER CLOCK


6
SD
5
D
1
Q
3
2
Q̄
RD
4
6
SD
9
D
13
Q
11
12
Q̄
RD
10

MC14046BF (MOTOROLA) FLAT PACKAGE

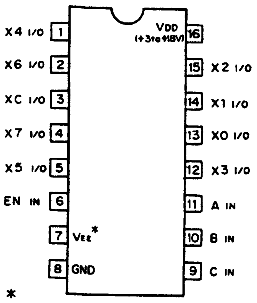
C-MOS PHASE LOCKED LOOP
- TOP VIEW -

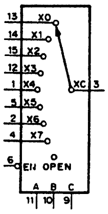

PCP (PHASE COMPARATOR) OUT
1
PC1 (PHASE COMPARATOR) OUT
2
PCB (PHASE COMPARATOR) IN
3
VCO OUT
4
INH (INHIBIT) IN
5
C1A
6
C1B
7
8
GND
VDD
(+3to+18V)
16
15
ZD (ZENER) OUT
14
PCA (PHASE COMPARATOR) IN
13
PC2 (PHASE COMPARATOR) OUT
12
R2
11
R1
10
SF (SOURCE FOLLOWER) OUT
9
VCO IN


PCA
14
SELF BIAS CIRCUIT
PHASE COMPARATOR 1
2
PC1
PHASE COMPARATOR 2
13
PC2
1
PCP
PCB
3
VCO
9
VCO
4
VCO
11
R1
12
R2
6
C1A
7
C1B
SOURCE FOLLOWER
10
SF
INH
5
GND
15
ZD

MC14051BF (MOTOROLA) FLAT PACKAGE

C-MOS 8-CHANNEL ANALOG MULTIPLEXER/DEMUL TIPLEXER
- TOP VIEW -


X4 I/O 1
X6 I/O 2
XC I/O 3
X7 I/O 4
X5 I/O 5
EN IN 6
7 VEE*
8 GND
VDD (+3 to +18V) 16
15 X2 I/O
14 X1 I/O
13 X0 I/O
12 X3 I/O
11 A IN
10 B IN
9 C IN


13 X0
14 X1
15 X2
12 X3
1 X4
5 X5
2 X6
4 X7
XC 3
6 EN OPEN
A B C
11 10 9

CONTROL INPUTS				SELECTED CHANNEL
EN	SELECT			
	C	B	A	
0	0	0	0	X0
0	0	0	1	X1
0	0	1	0	X2
0	0	1	1	X3
0	1	0	0	X4
0	1	0	1	X5
0	1	1	0	X6
0	1	1	1	X7
1	X	X	X	OPEN

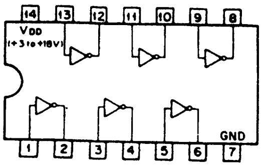
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

X0 to X7; ANALOG INPUTS/OUTPUTS
XC; COMMON INPUT/OUTPUT
A,B,C; CHANNEL SELECT INPUT
EN; ENABLE INPUT

*
VEE ; VDD - VEE = +3 to +18V

MC14069UBF (MOTOROLA) FLAT PACKAGE

C-MOS INVERTER
- TOP VIEW -


14 13 12 11 10 9 8
VDD (+3 to +18V)
GND
1 2 3 4 5 6 7

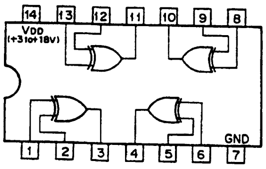
Y = $\overline{A}$

A	Y
0	1
1	0

0 ; LOW LEVEL
1 ; HIGH LEVEL

MC14070BF (MOTOROLA) FLAT PACKAGE

C-MOS EXCLUSIVE OR GATE
- TOP VIEW -


14 13 12 11 10 9 8
VDD (+3 to +18V)
GND
1 2 3 4 5 6 7

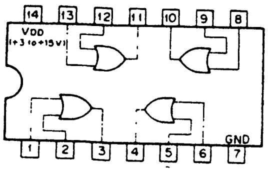
Y = $\overline{A}\cdot B + A\cdot\overline{B}$

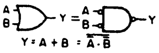
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

MC14071BF (MOTOROLA) FLAT PACKAGE

C-MOS 2-INPUT OR GATE
- TOP VIEW -


14 13 12 11 10 9 8
VDD (+3 to +15V)
GND
1 2 3 4 5 6 7



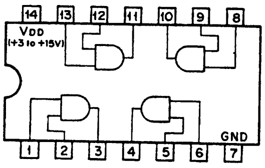
Y = A + B = $\overline{\overline{A}\cdot\overline{B}}$

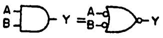
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0 : LOW LEVEL
1 : HIGH LEVEL

MC14081BF (MOTOROLA) FLAT PACKAGE

C-MOS 2-INPUT AND GATE
- TOP VIEW -


14 13 12 11 10 9 8
VDD (+3 to +15V)
GND
1 2 3 4 5 6 7



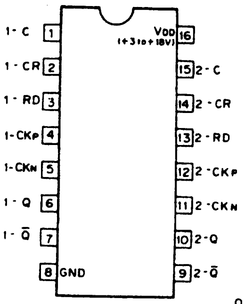
Y = A · B = $\overline{\overline{A}+\overline{B}}$

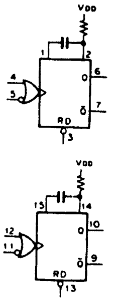
A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0; LOW LEVEL
1; HIGH LEVEL

MC14538BF (MOTOROLA) FLAT PACKAGE

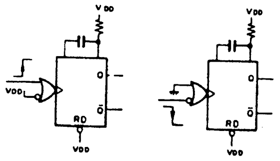
C-MOS DUAL RETRIGGERABLE/NON-RETRIGGERABLE MONOSTABLE MULTIVIBRATOR
- TOP VIEW -


1-C 1
1-CR 2
1-RD 3
1-CKP 4
1-CKN 5
1-Q 6
1-Q̄ 7
8 GND
VDD (+3 to +18V) 16
15 2-C
14 2-CR
13 2-RD
12 2-CKP
11 2-CKN
10 2-Q
9 2-Q̄

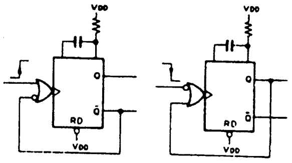

VDD
1 2
4
5
6
7
Q
Q̄
RD
3
VDD
15 14
12
11
10
9
Q
Q̄
RD
13

OUTPUT PULSE WIDTH = CR

RETRIGGERABLE M.M.V

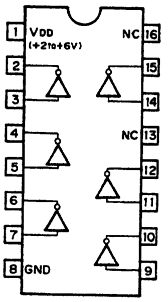

VDD
VDD
Q
Q̄
RD
VDD
VDD
Q
Q̄
RD
VDD

NON-RETRIGGERABLE M.M.V


VDD
Q
Q̄
RD
VDD
VDD
Q
Q̄
RD
VDD

MC74HC4049F (MOTOROLA) FLAT PACKAGE

C-MOS HEX BUFFER/CONVERTER (INVERTING)
- TOP VIEW -


1 VDD (+2 to +6V)
2
3
4
5
6
7
8 GND
NC 16
15
14
NC 13
12
11
10
9

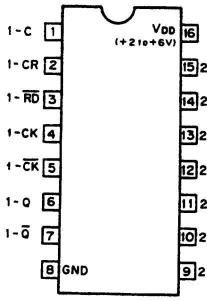
Y = $\overline{A}$

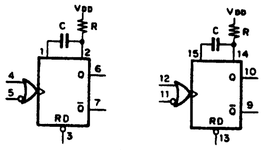
A	Y
0	1
1	0

0 ; LOW LEVEL
1 ; HIGH LEVEL

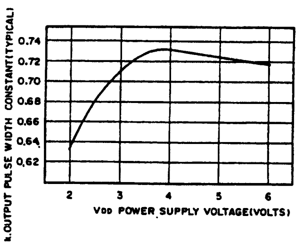
MC74HC4538AF (MOTOROLA) FLAT PACKAGE
TC74HC4538AF (TOSHIBA) FLAT PACKAGE

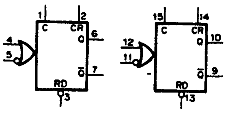
C-MOS DUAL RETRIGGERABLE/NON-RETRIGGERABLE MONOSTABLE MULTIVIBRATOR
- TOP VIEW -


1-C 1
1-CR 2
1-RD 3
1-CK 4
1-CK 5
1-Q 6
1-Q 7
8 GND
VDD (+2 to +6V) 16
15 2-C
14 2-CR
13 2-RD
12 2-CK
11 2-CK
10 2-Q
9 2-Q

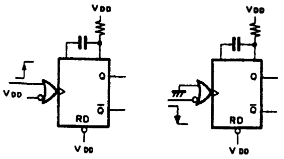

VDD
C
R
1
2
4
5
6
7
Q
Q
RD
3
15
14
12
11
10
9
13

OUTPUT PULSE WIDTH = k·C·R

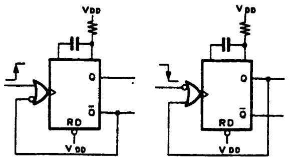



1
2
C
CR
4
5
6
7
Q
Q
RD
3
15
14
12
11
10
9
13

RETRIGGERABLE M.M.V

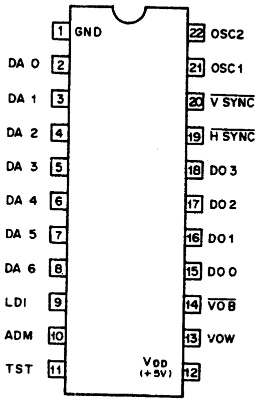

VDD
VDD
Q
Q
RD
VDD
VDD

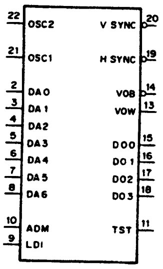
NON-RETRIGGERABLE M.M.V


VDD
VDD
Q
Q
RD
VDD
VDD

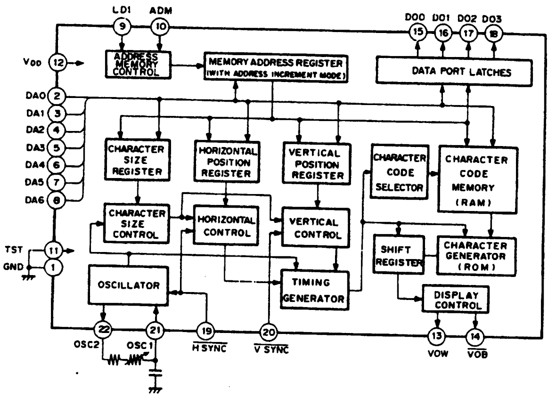
MN1237AD (MATSUSHITA)

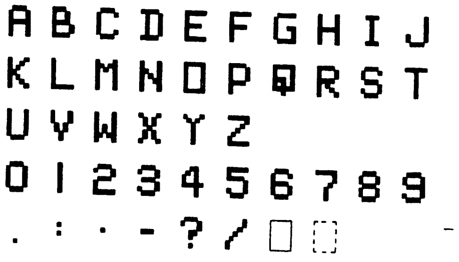
C-MOS INDICATES DATA OF 60 CHARACTERS CRT INTERFACE
- TOP VIEW -


1 GND
DA 0 2
DA 1 3
DA 2 4
DA 3 5
DA 4 6
DA 5 7
DA 6 8
LDI 9
ADM 10
TST 11
22 OSC2
21 OSC1
20 V SYNC
19 H SYNC
18 DO 3
17 DO 2
16 DO 1
15 DO 0
14 VOB
13 VOW
VDD (+5V) 12


22 OSC2
21 OSC1
2 DA0
3 DA1
4 DA2
5 DA3
6 DA4
7 DA5
8 DA6
10 ADM
9 LDI
V SYNC 20
H SYNC 19
VOB 14
VOW 13
DO0 15
DO1 16
DO2 17
DO3 18
TST 11

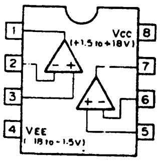
ADM	; ADDRESS MODE SELECT IN
DAO~DA6	; DATA BUS INPUT
DOO~DO3	; GENERAL OUTPUT
H SYNC	; H SYNC INPUT
LDI	; STROBE PULSE INPUT
OSC1,2	; OSC
TST	; TEST
VOB	; BACKGROUND OUTPUT
VOW	; CHARACTERS OUTPUT
V SYNC	; V SYNC INPUT


LDI
ADM
9
10
DOO DO1 DO2 DO3
15
16
17
18
VDD 12
ADDRESS MEMORY CONTROL
MEMORY ADDRESS REGISTER (WITH ADDRESS INCREMENT MODE)
DATA PORT LATCHES
DA0 2
DA1 3
DA2 4
DA3 5
DA4 6
DA5 7
DA6 8
CHARACTER SIZE REGISTER
HORIZONTAL POSITION REGISTER
VERTICAL POSITION REGISTER
CHARACTER CODE SELECTOR
CHARACTER CODE MEMORY (RAM)
CHARACTER SIZE CONTROL
HORIZONTAL CONTROL
VERTICAL CONTROL
SHIFT REGISTER
CHARACTER GENERATOR (ROM)
TST 11
GND 1
OSCILLATOR
TIMING GENERATOR
DISPLAY CONTROL
22
21
19
20
13
14
OSC2
OSC1
H SYNC
V SYNC
VOW
VOB


A B C D E F G H I J
K L M N O P Q R S T
U V W X Y Z
0 1 2 3 4 5 6 7 8 9
. : · - ? /

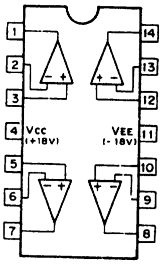
NJM062M (JRC) FLAT PACKAGE
TL062CPS (TI) FLAT PACKAGE

OPERATIONAL AMPLIFIER
(JFET-INPUT)
- TOP VIEW -


1
2
3
4 VEE (-18 to -1.5V)
Vcc (+1.5 to +18V) 8
7
6
5

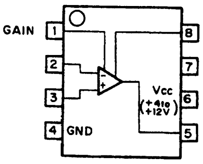
NJM064M (JRC) FLAT PACKAGE
TL064CNS (TI) FLAT PACKAGE

OPERATIONAL AMPLIFIER
(JFET-INPUT)
- TOP VIEW -


1
2
3
4 Vcc (+18V)
5
6
7
14
13
12
VEE (-18V) 11
10
9
8

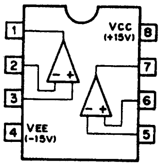
NJM386M (JRC) FLAT PACKAGE

AUDIO POWER AMPLIFIER
- TOP VIEW -


GAIN 1
2
3
4 GND
8 GAIN
7 BYPASS
Vcc (+4 to +12V) 6
5

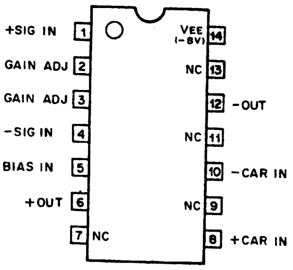
NJM4559M (JRC) FLAT PACKAGE

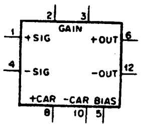
OPERATIONAL AMPLIFIER
- TOP VIEW -


1
2
3
4 VEE (-15V)
Vcc (+15V) 8
7
6
5

RC1496M (RAYTHEON) FLAT PACKAGE

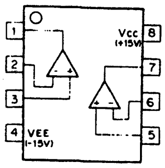
BALANCED MODULATOR/DEMODULATOR
- TOP VIEW -


+SIG IN 1
GAIN ADJ 2
GAIN ADJ 3
-SIG IN 4
BIAS IN 5
+OUT 6
7 NC
VEE (-8V) 14
NC 13
12 -OUT
NC 11
10 -CAR IN
NC 9
8 +CAR IN


2
3
GAIN
1 +SIG
+OUT 6
4 -SIG
-OUT 12
+CAR -CAR BIAS
8
10
5

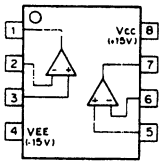
RC2041MD (RAYTHEON) FLAT PACKAGE

OPERATIONAL AMPLIFIER
- TOP VIEW -


Vcc (+15V)
VEE (-15V)

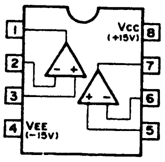
RC2043MD (RAYTHEON) FLAT PACKAGE

OPERATIONAL AMPLIFIER
- TOP VIEW -


Vcc (+15V)
VEE (-15V)

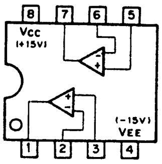
RC4556MA (RAYTHEON) FLAT PACKAGE

OPERATIONAL AMPLIFIER
(WIDE BAND DECOMPENSATED)
- TOP VIEW -


Vcc (+15V)
VEE (-15V)

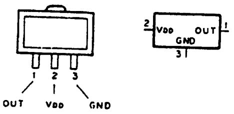
RC4558M (RAYTHEON) FLAT PACKAGE
µPC4558G2 (NEC) FLAT PACKAGE

OPERATIONAL AMPLIFIER
- TOP VIEW -


Vcc (+15V)
(-15V) VEE

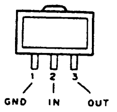
S-8054HN-CB (SEIKO)

+6V VOLTAGE DETECTOR WITH N-CHANNEL OPEN DRAIN OUTPUT
- TOP VIEW -

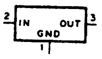

1 2 3
OUT VDD GND
2 VDD OUT 1
GND 3

S-81230AG-RB (SEIKO) FLAT PACKAGE

THREE TERMINAL POSITIVE VOLTAGE REGULATOR
- TOP VIEW -

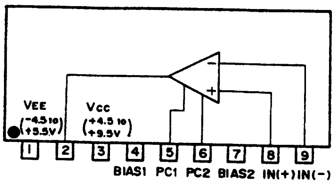

1 2 3
GND IN OUT

OUTPUT VOLTAGE	S-812????-??
+2.5V	S-81225AG-RH
+3.0V	S-81230AG-RB
+5.0V	S-81250HG-RD


2 IN OUT 3
GND 1

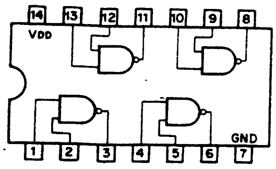
SBX1588 (SONY)

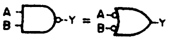
VIDEO AMPLIFIER
- SIDE VIEW -


VEE (-4.5 to -5.5V)
Vcc (+4.5 to +9.5V)
1 2 3 4 5 6 7 8 9
BIAS1 PC1 PC2 BIAS2 IN(+) IN(-)

SN74HC00ANS (TI) FLAT PACKAGE

C-MOS QUAD 2-INPUT NAND GATES
- TOP VIEW -





Y = $\overline{A \cdot B} = \bar{A} + \bar{B}$

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

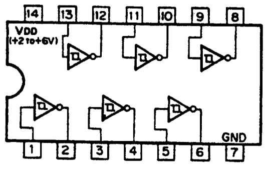
0; LOW LEVEL
1; HIGH LEVEL

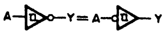
NOTE.

TYPE	VDD
TC74AC00 TYPE	+2 to +5.5V
MC74HCT00N	+5V
74ACT00 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC14ANS (TI) FLAT PACKAGE

C-MOS SCHMITT TRIGGER INVERTER
- TOP VIEW -

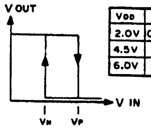

VDD (+2 to +6V)
GND



Y = $\bar{A}$

A	Y
0	1
1	0

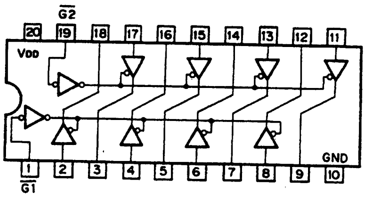
0; LOW LEVEL
1; HIGH LEVEL

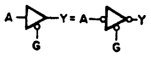


VDD	VN	VP
2.0V	0.75V	1.25V
4.5V	1.9V	2.7V
6.0V	2.6V	3.6V

SN74HC244ANS (TI) FLAT PACKAGE

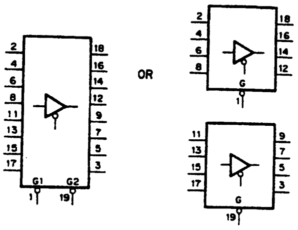
C-MOS BUS BUFFER WITH 3-STATE OUTPUTS
- TOP VIEW -


$\overline{G2}$
VDD
GND
$\overline{G1}$



G	A	Y
0	0	0
0	1	1
1	X	HI-Z

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
HI-Z; HIGH IMPEDANCE

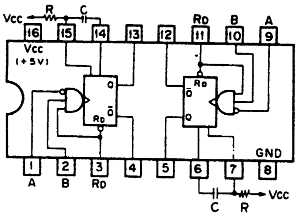


NOTE :

TYPE	VDD
AC HC 40H	+2 to +6V
ACT HCT	+5V

SN74LS123NS (TI) FLAT PACKAGE

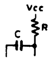
TTL RETRIGGERABLE MONOSTABLE MULTIVIBRATOR WITH DIRECT RESET
- TOP VIEW -


Vcc R C
RD B A
Vcc (+5V)
GND
A B RD
C R Vcc

INPUTS			OUTPUTS	
RD	A	B	Q	$\bar{Q}$
0	X	X	0	1
X	1	X	0	1
X	X	0	0	1
1	0	↑	⎍	⊔
1	↓	1	⎍	⊔
↑	0	1	⎍	⊔

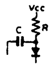
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

OUTPUT PULSE WIDTH



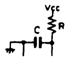
'123, $T_W = 0.28\left(1+\frac{700}{R}\right)CR$

'L123; $T_W = 0.33\left(1+\frac{700}{R}\right)CR$



'123, $T_W = 0.25\left(1+\frac{700}{R}\right)CR$

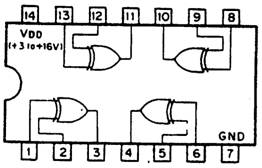
'L123; $T_W = 0.29\left(1+\frac{700}{R}\right)CR$

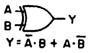


'LS123, $T_W = 0.45CR$

TC4030BFHB (TOSHIBA) FLAT PACKAGE

C-MOS EXCLUSIVE OR GATE
- TOP VIEW -


VDD (+3 to +16V)
GND



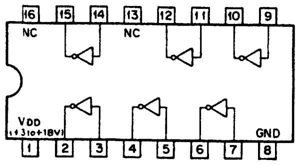
Y = $\bar{A} \cdot B + A \cdot \bar{B}$

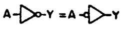
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

TC4049BF (TOSHIBA) FLAT PACKAGE

C-MOS INVERTING TYPE BUFFER/CONVERTER
- TOP VIEW -


16
15
14
13
12
11
10
9
NC
NC
VDD
(+3 to +18V)
GND
1
2
3
4
5
6
7
8



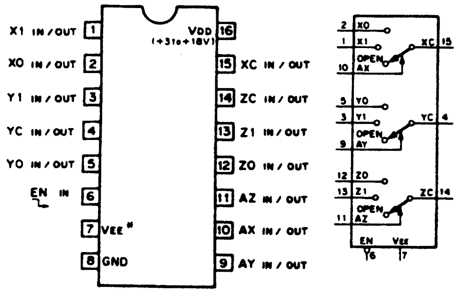
Y = $\bar{A}$

A	Y
0	1
1	0

0; LOW LEVEL
1; HIGH LEVEL

TC4053BFHB (TOSHIBA) FLAT PACKAGE
TC74HC4053AF

C-MOS 2-CHANNEL MULTIPLEXER/DEMULTIPLEXER
- TOP VIEW -


X1 IN / OUT 1
X0 IN / OUT 2
Y1 IN / OUT 3
YC IN / OUT 4
Y0 IN / OUT 5
EN IN 6
7 VEE*
8 GND
VDD (+3 to +18V) 16
15 XC IN / OUT
14 ZC IN / OUT
13 Z1 IN / OUT
12 Z0 IN / OUT
11 AZ IN / OUT
10 AX IN / OUT
9 AY IN / OUT
2 X0
1 X1
XC 15
10 OPEN AX
5 Y0
3 Y1
YC 4
9 OPEN AY
12 Z0
13 Z1
ZC 14
11 OPEN AZ
EN 6
VEE 7

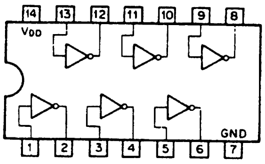
VEE*; VDD−VEE: +3 to +18 V

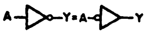
CONT. INPUTS		ON CHANNEL
EN	A (X,Y,Z)	
0	0	0
0	1	1
1	X	OPEN

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE.

SN74HCU04ANS (TI) FLAT PACKAGE

C-MOS INVERTER
- TOP VIEW -


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



Y = $\bar{A}$

A	Y
0	1
1	0

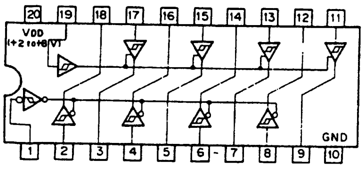
0: LOW LEVEL
1: HIGH LEVEL

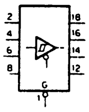
NOTE:

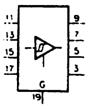
TYPE	VDD
74HCT04 TYPE	+5V
TC74AC04 TYPE	+2 to +5.5V
74ACT04 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

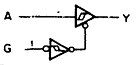
TC40H241F (TOSHIBA) FLAT PACKAGE

C-MOS 3-STATE SCHMITT TRIGGER BUFFER/LINE DRIVER
- TOP VIEW -


20
19
18
17
16
15
14
13
12
11
VDD
(+2 to +8V)
GND
1
2
3
4
5
6
7
8
9
10

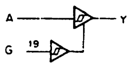

2
4
6
8
18
16
14
12
G
1


11
13
15
17
9
7
5
3
G
19



G	A	Y
0	0	0
0	1	1
1	0	HI - Z
1	1	HI - Z

HI - Z;
HIGH IMPEDANCE

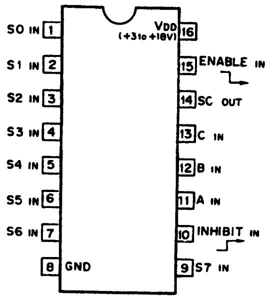


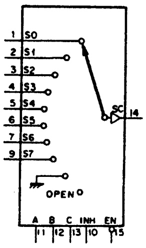
G	A	Y
0	0	HI - Z
0	1	HI - Z
1	0	0
1	1	1

HI - Z;
HIGH IMPEDANCE

TC4512BF (MOTOROLA) FLAT PACKAGE

C-MOS 8-CHANNEL DATA SELECTOR/MULTIPLEXER
- TOP VIEW -


S0 IN 1
S1 IN 2
S2 IN 3
S3 IN 4
S4 IN 5
S5 IN 6
S6 IN 7
8 GND
VDD (+3 to +18V) 16
15 ENABLE IN
14 SC OUT
13 C IN
12 B IN
11 A IN
10 INHIBIT IN
9 S7 IN

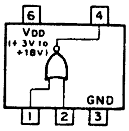

1 S0
2 S1
3 S2
4 S3
5 S4
6 S5
7 S6
9 S7
OPEN
SC
14
A
B
C
INH
EN
11
12
13
10
15

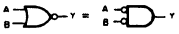
CONTROL INPUTS					OUTPUT
EN	INH	C	B	A	SC
0	0	0	0	0	S0
0	0	0	0	1	S1
0	0	0	1	0	S2
0	0	0	1	1	S3
0	0	1	0	0	S4
0	0	1	0	1	S5
0	0	1	1	0	S6
0	0	1	1	1	S7
0	1	X	X	X	GND
1	X	X	X	X	OPEN

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

TC4S01F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT NOR GATE
- TOP VIEW -


6
4
VDD
(+3V to +18V)
GND
1
2
3



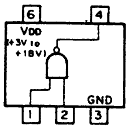
Y = $\overline{A+B} = \bar{A}\cdot\bar{B}$

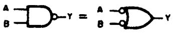
A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

TC4S11F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT HAND GATE
- TOP VIEW -


6
4
VDD
(+3V to +18V)
GND
1
2
3



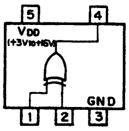
Y = $\overline{A\cdot B} = \bar{A}+\bar{B}$

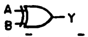
A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

0, LOW LEVEL
1, HIGH LEVEL

TC4S30F (TOSHIBA) FLAT PACKAGE

C-MOS EXCLUSIVE OR GATE
- TOP VIEW -


5
4
VDD
(+3V to +18V)
GND
1
2
3



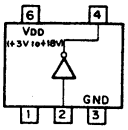
Y = $\bar{A}\cdot B + A\cdot\bar{B}$

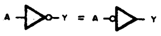
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

TC4S69F (TOSHIBA) FLAT PACKAGE
TC4SU69F (TOSHIBA) FLAT PACKAGE

C-MOS INVERTER BUFFER
- TOP VIEW -


6
4
VDD
(+3V to +18V)
GND
1
2
3



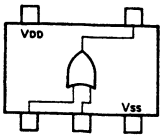
Y = $\bar{A}$

A	Y
0	1
1	0

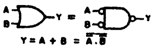
0; LOW LEVEL
1; HIGH LEVEL

TC4S71F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT OR GATE
- TOP VIEW -



(MINI MOLD PACKAGE)

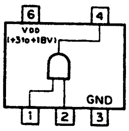

A
B
Y
A
B
Y
Y = A + B = $\overline{\overline{A}\cdot\overline{B}}$

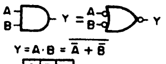
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0; LOW LEVEL
1; HIGH LEVEL

TC4S81F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT AND GATE
- TOP VIEW -


6
4
VDD
(+3to+18V)
GND
1
2
3

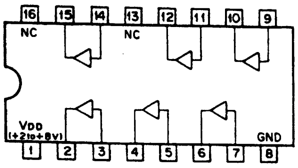

A
B
Y
A
B
Y
Y = A·B = $\overline{\overline{A}+\overline{B}}$

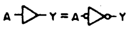
A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0: LOW LEVEL
1: HIGH LEVEL

TC50H001F (TOSHIBA) FLAT PACKAGE

C-MOS NON-INVERTING TYPE BUFFER/CONVERTER
- TOP VIEW -


16
15
14
13
12
11
10
9
NC
NC
VDD
(+2to+8V)
GND
1
2
3
4
5
6
7
8

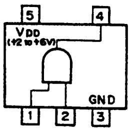


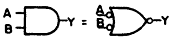
Y = A

A	Y
0	0
1	1

TC7S08F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT AND GATE
- TOP VIEW -


5
4
VDD
(+2 to +6V)
GND
1
2
3

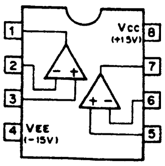

A
B
Y
A
B
Y
Y = A·B = $\overline{\overline{A}+\overline{B}}$

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0; LOW LEVEL
1; HIGH LEVEL

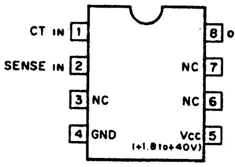
TL072CPS (TI) FLAT PACKAGE

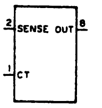
OPERATIONAL AMPLIFIER
(LOW-NOISE, JFET-INPUT)
- TOP VIEW -

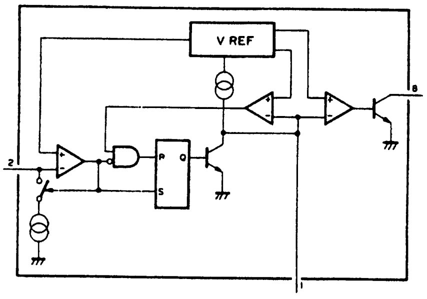

1
2
3
4
VEE
(−15V)
Vcc
(+15V)
8
7
6
5

TL7700CPS (TI) FLAT PACKAGE

VARIABLE SUPPLY VOLTAGE SUPERVISOR
- TOP VIEW -

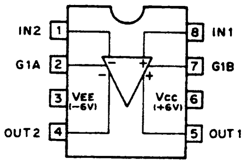

CT IN
1
SENSE IN
2
3
NC
4
GND
8
OUT
NC
7
NC
6
Vcc
(+1.8to+40V)
5


2
SENSE
OUT
8
1
CT


V REF
8
2
P
Q
S
1

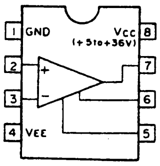
μPC1663G (NEC) FLAT PACKAGE

WIDEBAND VIDEO AMPLIFIER
- TOP VIEW -


IN2
1
G1A
2
3
VEE
(−6V)
OUT2
4
8
IN1
7
G1B
Vcc
(+6V)
6
5
OUT1

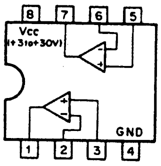
μPC311G2 (NEC) FLAT PACKAGE

VOLTAGE COMPARATOR
- TOP VIEW -


1
GND
Vcc
(+5to+36V)
8
2
7
3
6
4
VEE
5

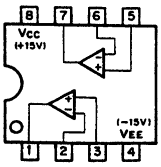
μPC358G2 (NEC) FLAT PACKAGE

DUAL OPERATIONAL AMPLIFIERS
- TOP VIEW -


8
7
6
5
Vcc
(+3to+30V)
GND
1
2
3
4

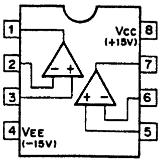
μPC4560G2 (NEC) FLAT PACKAGE

DUAL OPERATIONAL AMPLIFIER
- TOP VIEW -


8
7
6
5
Vcc
(+15V)
(−15V)
VEE
1
2
3
4

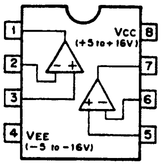
µPC4572G2 (NEC) FLAT PACKAGE

OPERATIONAL AMPLIFIER (WIDE BAND, LOW NOISE)
- TOP VIEW -


1
2
3
4
VEE
(−15V)
VCC
(+15V)
8
7
6
5
− +
+ −

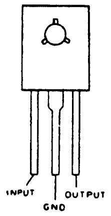
µPC812G2 (NEC) FLAT PACKAGE

OPERATIONAL AMPLIFIER (JFET-INPUT)
- TOP VIEW -

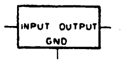

1
2
3
4
VEE
(−5 to −16V)
VCC
(+5 to +16V)
8
7
6
5
− +
+ −

µPC78N??H (NEC)

POSITIVE VOLTAGE REGULATOR
- FRONT VIEW -

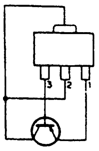

INPUT
GND
OUTPUT

OUTPUT VOLTAGE	µPC78N??H
+5V	µPC78N05H
+8V	µPC78N08H
+10V	µPC78N10H
+12V	µPC78N12H
+15V	µPC78N15H
+18V	µPC78N18H
+24V	µPC78N24H


INPUT
OUTPUT
GND

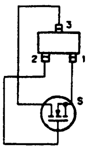
TRANSISTOR

TOP VIEW (SCALE 4/1)



2SA1463
2SB798

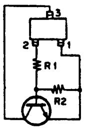
TOP VIEW (SCALE 2/1)



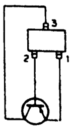
2SK620

DTC114EU (R1 = 10K, R2 = 10K)
DTC114YU (R1 = 10K, R2 = 47K)

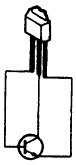
TOP VIEW (SCALE 4/1)



TOP VIEW (SCALE 4/1)

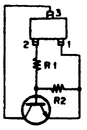


2SA1162
2SA1226
2SA1462
2SA1611
2SB624

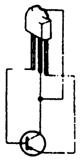


2SD1221

TOP VIEW (SCALE 4/1)

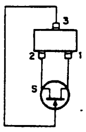


DTC144EU
(R1 = 47K, R2 = 47K)



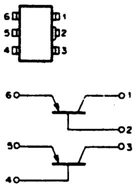
2SB907

TOP VIEW (SCALE 4/1)



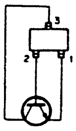
2SK209
2SK508
2SK94

(SCALE 6/1)
TOP VIEW

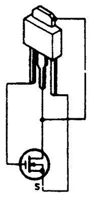


XN6435

TOP VIEW (SCALE 4/1)

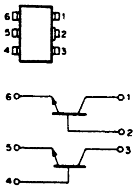


2SC1623
2SC2713
2SC2757
2SC3360
2SC4177
2SC4178
2SC4213
2SD1623
2SD596
NTM2369



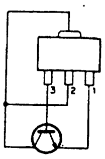
2SK612

(SCALE 6/1)
TOP VIEW



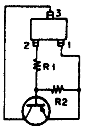
XN6534

TOP VIEW (SCALE 4/1)

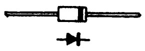


2SD1615A

TOP VIEW (SCALE 4/1)

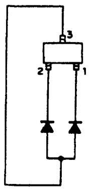


DTA114YK
(R1 = 10K, R2 = 47K)
DTA144EU



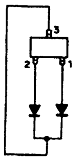
1S1555S
1SS119

(SCALE 4/1)
TOP VIEW



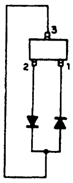
1S2835
1S2836

TOP VIEW (SCALE 4/1)

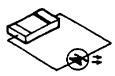


1S2837
1SS304
DAN202U
DAP202U
HSM88WK

TOP VIEW (SCALE 4/1)

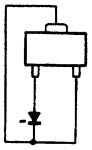


1SS226
DA204U
HSM88AS

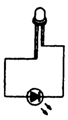


CL-150D-CD ; ORANGE
CL-150UR-CD ; RED

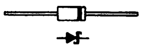
TOP VIEW (SCALE 4/1)



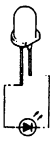
E10QS04



EBR3402S ; RED

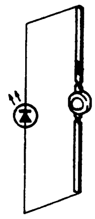


ERA81-004

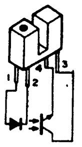


GL-5LR40 ; RED

(SCALE 2/1)

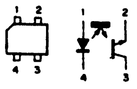


GL1HD11 ; RED

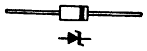


GP-1S54

- BOTTOM VIEW -

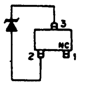


GP-2S07B
GP-2S09

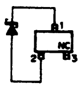


HZ?ALL
HZ?B?L
HZ?BLL
HZS?ALL
HZS??JB?
HZS??L
RD??ESB?
RD??FB?

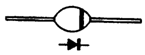
TOP VIEW (SCALE 4/1)



RC??M



SB01-05CP



U05E
V09C
V11?

SECTION 11
SCHEMATIC DIAGRAMS

回路図内において，ＲＥＦ．ＮＯの近傍に下記記号が記載されていますが，これは生産時の部品データです。

In the schematic diagrams, the following marks are described near by reference number.
These are parts data at factory.

CAPACITOR(C)

AL	ELECTROLYTIC
AS	
TA	TANTALUM
CA	CERAMIC
CC	
CCS	
CM	
CS	
MPS	MYLAR
PP	
PS	
PT	
MD	DIPPED MICA
MS	MICA

RESISTOR(R)
VARIABLE RESISTOR(RV)

RC	CARBON
RD	
RF	FUSE
RN	METAL
RS	
RW	WIREWOUND

CIRCUIT FUNCTION OF THE SCHEMATIC DIAGRAMS

SYSTEM	CIRCUIT BOARD	CIRCUIT FUNCTION
CAMERA	CN-803	Connector PCB for BI Boards
	BI-29 BI-30 BI-31	CCD mount SERIAL No. 40001-40031
	BI-69 BI-70 BI-71	CCD mount SERIAL No. 40032 and higher
	TG-119P	Timing Generator
	TG-120	Sub Timing Generator (1)
	TG-121	Sub Timing Generator (2)
	SW-563	Clear Scan Set
	PA-155	Pre-amp(Sample & Hold)
	DR-124	CCD Driver
	VA-104	Video Amp,Black Set,Total Gain Chage,Shading Compensator
	IE-30P	Image Enhancer
	IE-31	Aperture
	PR-176 PR-177 PR-178	Gamma,Masking,Knee,Slope, W.Clip,Dynamic Contrast Control
	EN-79P	Y/R-Y/B-Y Signal Generator for VTR,Encoder, Color Bars Generator
	SG-152AP SG-157	Sync Generator,Genlock for TC,Sub-regulator
	AT-49B	Auto white/black Function, VF Character Generator, System Controller, Audio Level Detector
	SW-220	SAVE-STBY,Color Bars ON/OFF, DCC ON/OFF, Memory A/B/Preset SW
	SW-357B	Auto White/Black SW VTR Start/Stop SW Shutter ON/OFF Select
	VR-77	Master Black VR
	IF-298A	26P Interface,Logic VF Marker Gen.
	CN-400	Connector PCB for IF-298A

SYSTEM	CIRCUIT BOARD	CIRCUIT FUNCTION
VIDEO	VDA-11P	CTDM and C-Modulator
	AFM-6P	Y-Modulator,AFM
	VP-24P	Video Playback, Head Select Pulse Generator
AUDIO	AU-97P	Audio REC/PB Processor
	TB-5	Terminal Board,Audio Confi PB
	FL-55P	Audio Head AMP,Relay Board for TB and A/T Head
SERVO	SV-97AP	Drum/Capstan Servo
SYSTEM CONTROL	SY-117CP	System Control
	KY-124	Function Key Board
TIME CODE	TC-48AP	Time Code Generator,Audio Level Control, Audio Monitor AMP,SW and Indicator for Audio and TC
	VR-70	Volume
POWER	PS-162	Power Distributor
SENSOR	FE-4	Full Erase, Dew and End Sensor
	LD-21	Loading Motor Driver and END Sensor
	SR-40	Mechanical Position Sensor

SYSTEM
OTHERS

SYSTEM
VIEW-FINDER

TION
lator
lead Select
cessor
io Confi PB
elay Board ead
vo
rd
tor,Audio dio Monitor cator for
r
End Sensor
er and END
on Sensor

SYSTEM	CIRCUIT BOARD	CIRCUIT FUNCTION
OTHERS	MB-317P	Mother Board
	SW-291	Back Tally
	FL-45	Relay Board for MB and TC
	FL-46	Relay Board for MB and TC
	FL-53	Relay Board for TB and SR
	FL-57	Relay Board for PS and TC
	EX-148	Extension Board

SYSTEM	CIRCUIT BOARD	CIRCUIT FUNCTION
VIEW-FINDER	VF-50	Drive and Video Amp for Viewfinder,Peaking Signal Generator
	LP-64	REC LED
	LP-65	BATT/TALLY, VTR SAVE LED
	LP-66	Front Tally LED
	VR-149	Contrast,Bright,Peaking, Audio Level(CH-1) VR
	SW-562	Tally ON/OFF,Audio Level Indicator ON/OFF, Zebra/Marker ON/OFF SW
	CN-771	Connector for VF Cable

CCD BLOCK(1/2)
TG-121;SUB TIMING GENERATOR
TG-119P;TIMING GENERATOR
DR-124;CCD DRIVER

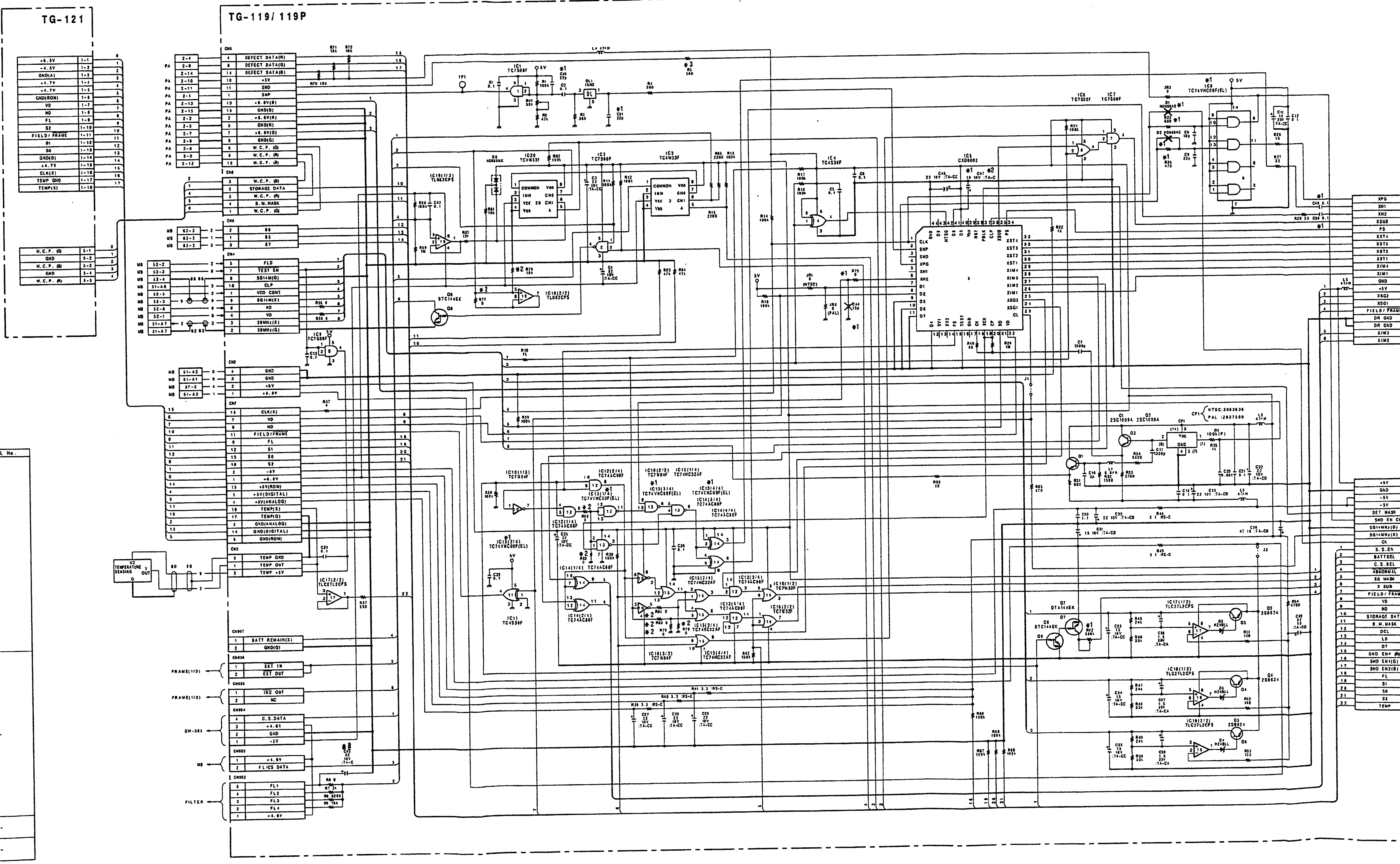
1

2

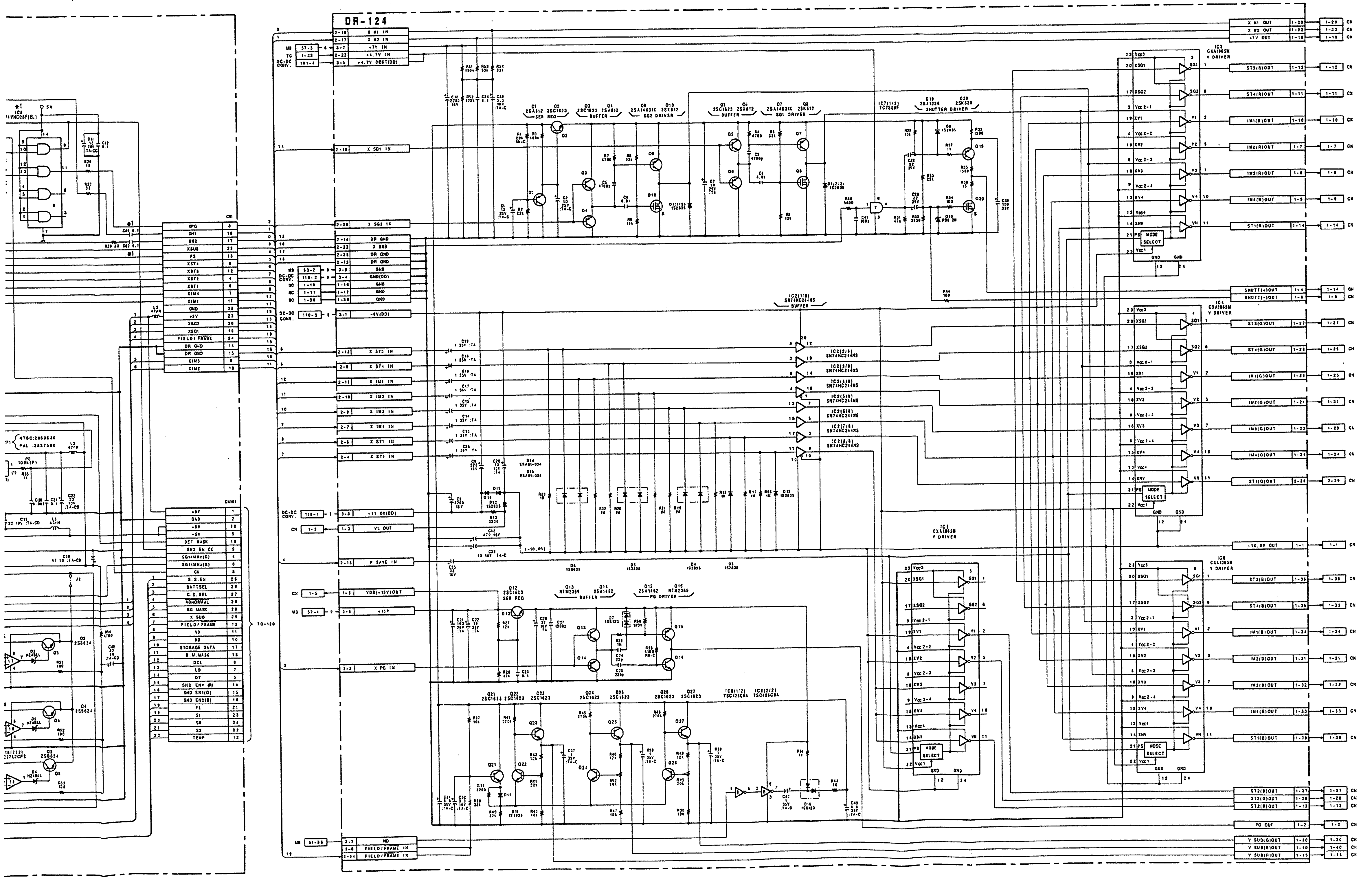
3

4

5



MARK	CHANGE INFORMATION	SERIAL No.
*1	R5 470 → 47 R23 220 → 680 R24 270 → 470 R75 430 → 0 RV2 100k → 500k IC8 TC74AC08F ↓ TC74VHC08F(EL) IC13 SN74HC00ANS ↓ SN74VHC00F(EL) C46 22P, C51 22P, R76 10k, R77 0 } ADDED C47 10 6 3V :TA-C ADDED (IC5 PIN41, 42:short) C44 15P DELETE D1, D2 HSM88AS DELETE R73 0 → C49 0.1 R74 0 → C50 0 1	40082-
*2	C45 22 10V, R76 10k, R77 0 } ADDED C47 10 6.3V :TAC-C — 10 10V :TA-C C45 22 6.3V — 22 10V :TA-C R78 0, R79 0, R80 0, R81 0, R82 0, R83 0 } ADDED	40361-
*3	R5 47 → 560 R84 2.7K ADDED	40411-
*4	R85 470 ADDED R77 0 DELETE	40518-


DR-124
X H1 IN
X H2 IN
+7V IN
+4.7V CONT(DD)
X SG1 IN
X SG2 IN
DR GND
X SUB
GND(DD)
-8V(DD)
X ST3 IN
X ST4 IN
X IM1 IN
X IM2 IN
X IM3 IN
X IM4 IN
X ST1 IN
X ST2 IN
-11.0V(DD)
VL OUT
P SAVE IN
VDD(+15V)OUT
+15V
X PG IN
HD
FIELD/FRAME IN
CN1
CN101
TG-120
DC-DC CONV.
SER REG
BUFFER
SG2 DRIVER
SG1 DRIVER
SHUTTER DRIVER
PG DRIVER
IC2(1/8) SN74HC244NS BUFFER
IC3 CXA1065M V DRIVER
IC4 CXA1065M V DRIVER
IC5 CXA1065M V DRIVER
IC6 CXA1065M V DRIVER
Vcc3
XSG1
XSG2
Vcc2-1
XV1
Vcc2-2
XV2
Vcc2-3
XV3
Vcc2-4
XV4
Vcc4
XNV
PS
MODE SELECT
Vcc1
GND
SG1
SG2
V1
V2
V3
V4
VN
X H1 OUT 1-20
X H2 OUT 1-22
+7V OUT 1-19
ST3(R)OUT 1-12
ST4(R)OUT 1-11
IM1(R)OUT 1-10
IM2(R)OUT 1-7
IM3(R)OUT 1-8
IM4(R)OUT 1-9
ST1(R)OUT 1-14
SHUTT(+)OUT 1-4
SHUTT(-)OUT 1-6
ST3(G)OUT 1-27
ST4(G)OUT 1-26
IM1(G)OUT 1-25
IM2(G)OUT 1-21
IM3(G)OUT 1-23
IM4(G)OUT 1-24
ST1(G)OUT 2-29
-10.0V OUT 1-1
ST3(B)OUT 1-36
ST4(B)OUT 1-35
IM1(B)OUT 1-34
IM2(B)OUT 1-31
IM3(B)OUT 1-32
IM4(B)OUT 1-33
ST1(B)OUT 1-39
ST2(B)OUT 1-37
ST2(G)OUT 1-28
ST2(R)OUT 1-13
PG OUT 1-2
V SUB(G)OUT 1-30
V SUB(B)OUT 1-40
V SUB(R)OUT 1-15
CN

CCD BLOCK(1/2)

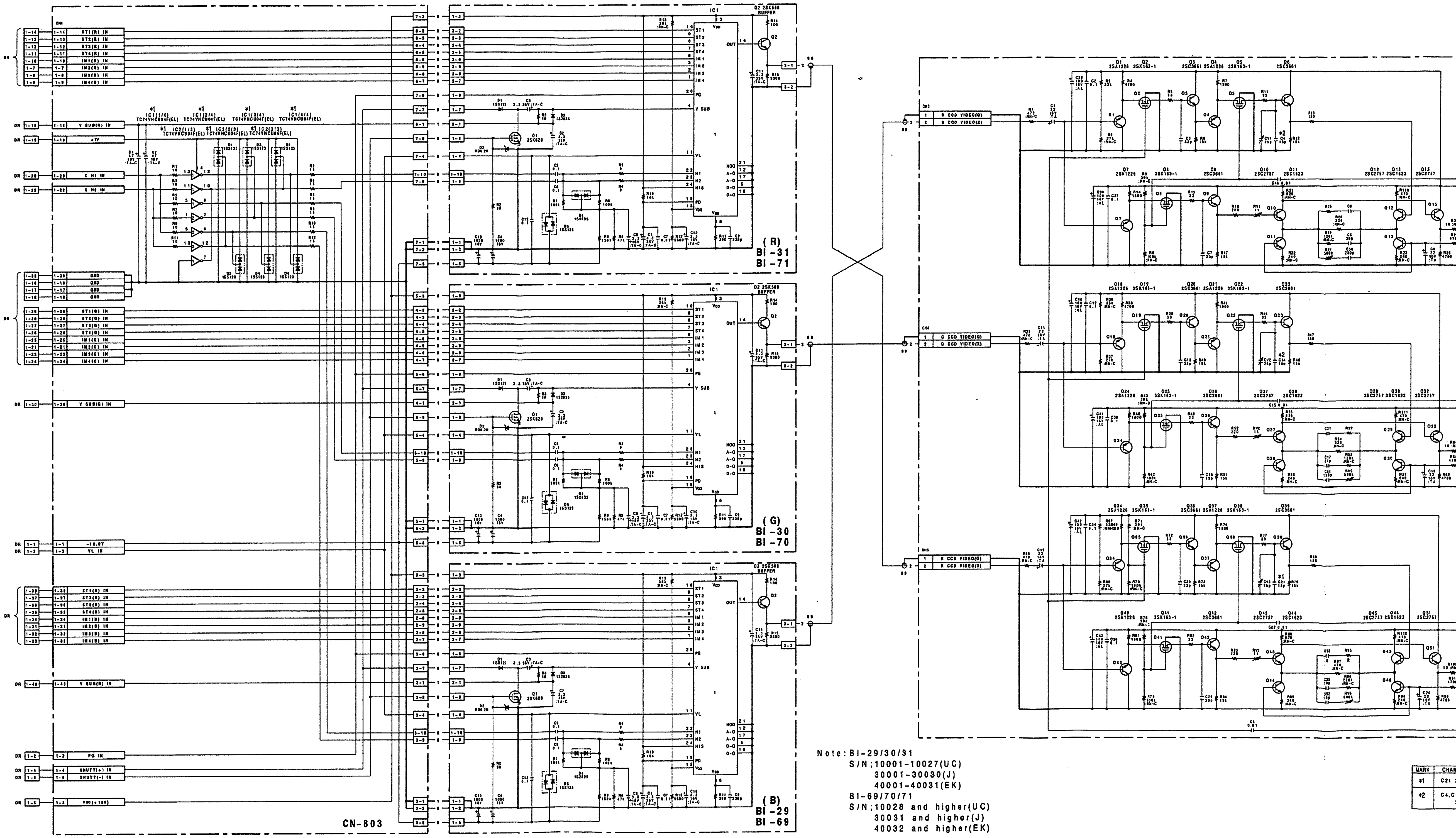
TG-119P BOARD

1-643-710-11, 12

DR-124 BOARD

1-634-962-11
BVW-400P(EK);#40001-

CCD BLOCK(2/2)
BI-69,BI-70,BI-71;CCD BIAS
CN-304;CONNECTOR
PA-155;CCD PREAMP


CN-803
IC1
2SK508 BUFFER
(R)
BI-31
BI-71
(G)
BI-30
BI-70
(B)
BI-29
BI-69
ST1(R) IN
V SUB(R) IN
+7V
X H1 IN
X H2 IN
GND
V SUB(G) IN
-10.0T
VL IN
V SUB(B) IN
PG IN
SHUTT(+) IN
SHUTT(-) IN
VDD(+15V)
IC1(1/4) TC74VHCU04F(EL)
R CCD VIDEO(G)
G CCD VIDEO(G)
B CCD VIDEO(G)
CN3
CN4
CN5
2SA1226
3SK163-1
2SC3661
2SC2757
2SC1623

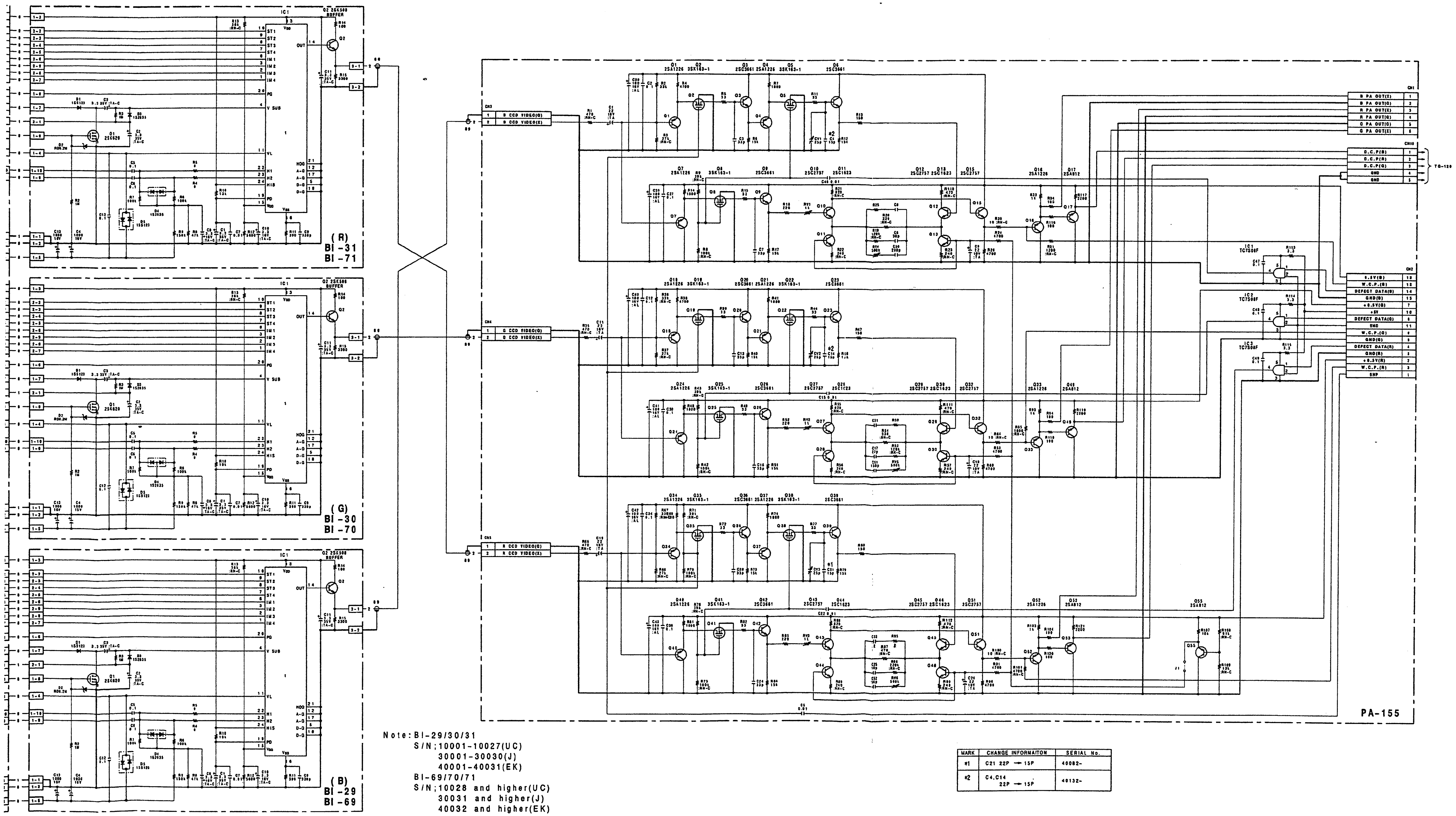
MARK	CHANGE INFORMATION	SERIAL No.
#1	IC1.IC2 HD74AC04P-R ↓ TC74VHCU04F(EL)	40082-

Note: BI-29/30/31
S/N;10001-10027(UC)
30001-30030(J)
40001-40031(EK)
BI-69/70/71
S/N;10028 and higher(UC)
30031 and higher(J)
40032 and higher(EK)

MARK	CHAN
#1	C21
#2	C4,C

CCD BLOCK(2/2)

CCD BLOCK(2/2)


IC1
Q2 2SK508 BUFFER
(R)
BI-31
BI-71
(G)
BI-30
BI-70
(B)
BI-29
BI-69
CN3
R CCD VIDEO(G)
R CCD VIDEO(X)
CN4
G CCD VIDEO(G)
G CCD VIDEO(X)
CN5
B CCD VIDEO(G)
B CCD VIDEO(X)
IC1 TC7S08F
IC2 TC7S08F
IC3 TC7S08F
CN1
B PA OUT(X) 1
B PA OUT(G) 2
R PA OUT(X) 3
R PA OUT(G) 4
G PA OUT(G) 5
G PA OUT(X) 6
CN10
D.C.P(B) 1
D.C.P(R) 2
D.C.P(G) 3
GND 4
GND 5
TG-120
CN2
6.5V(B) 13
W.C.P.(B) 12
DEFECT DATA(B) 14
GND(B) 15
+6.5V(G) 7
+5V 10
DEFECT DATA(G) 8
SND 11
W.C.P.(G) 6
GND(G) 9
DEFECT DATA(R) 4
GND(R) 5
+6.5V(R) 2
W.C.P.(R) 3
SHP 1
PA-155

Note:BI-29/30/31
S/N;10001-10027(UC)
30001-30030(J)
40001-40031(EK)
BI-69/70/71
S/N;10028 and higher(UC)
30031 and higher(J)
40032 and higher(EK)

MARK	CHANGE INFORMAITON	SERIAL No.
*1	C21 22P → 15P	40082-
*2	C4,C14 22P → 15P	40132-

PA-155 BOARD
1-643-713-11,12

BI-29 BOARD
1-630-554-12

BI-69 BOARD
1-644-491-11

BI-30 BOARD
1-630-555-11

BI-70 BOARD
1-644-492-11

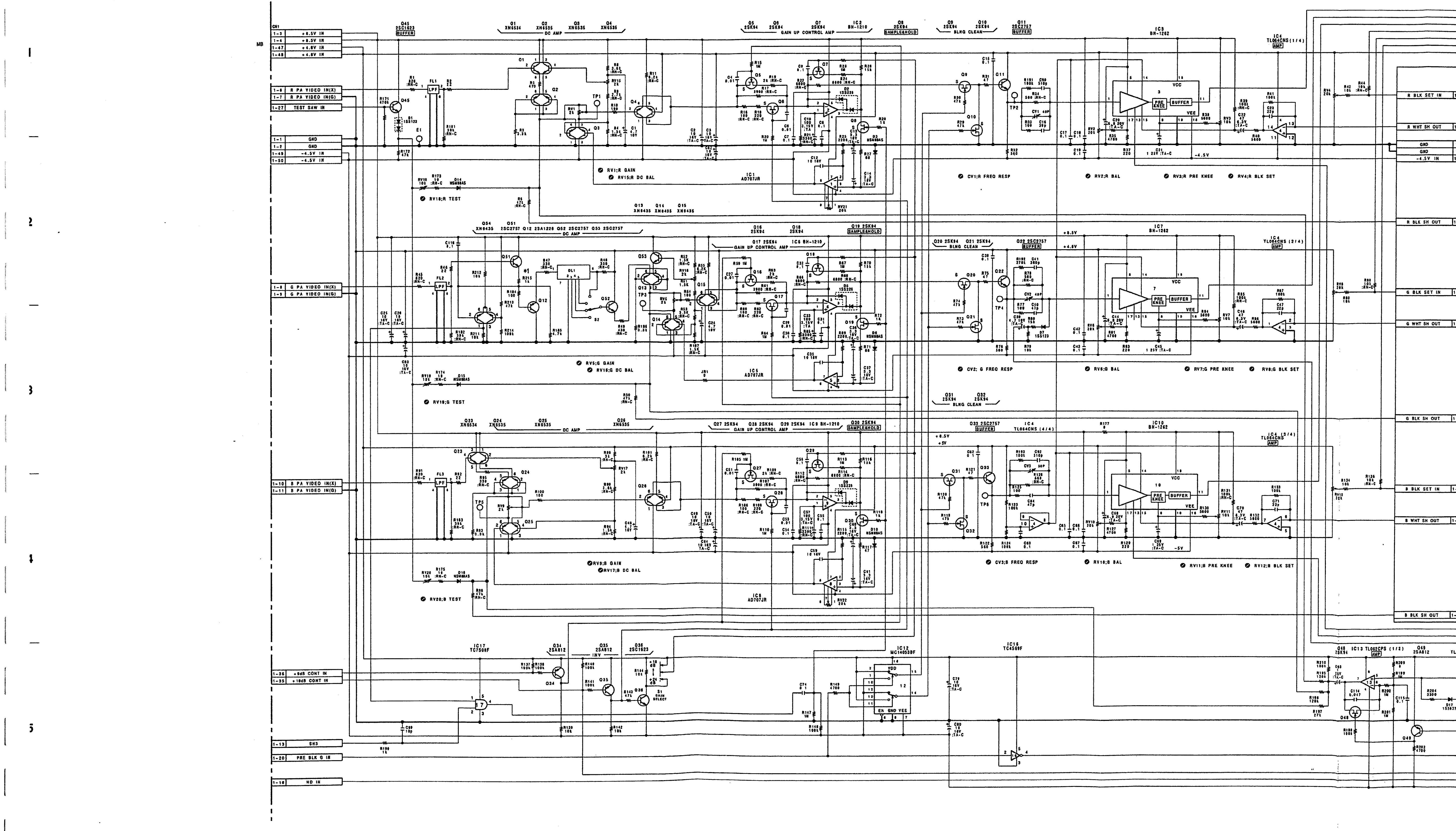
BI-31 BOARD
1-630-556-11

BI-71 BOARD
1-644-493-11

CN-803 BOARD
1-644-490-11

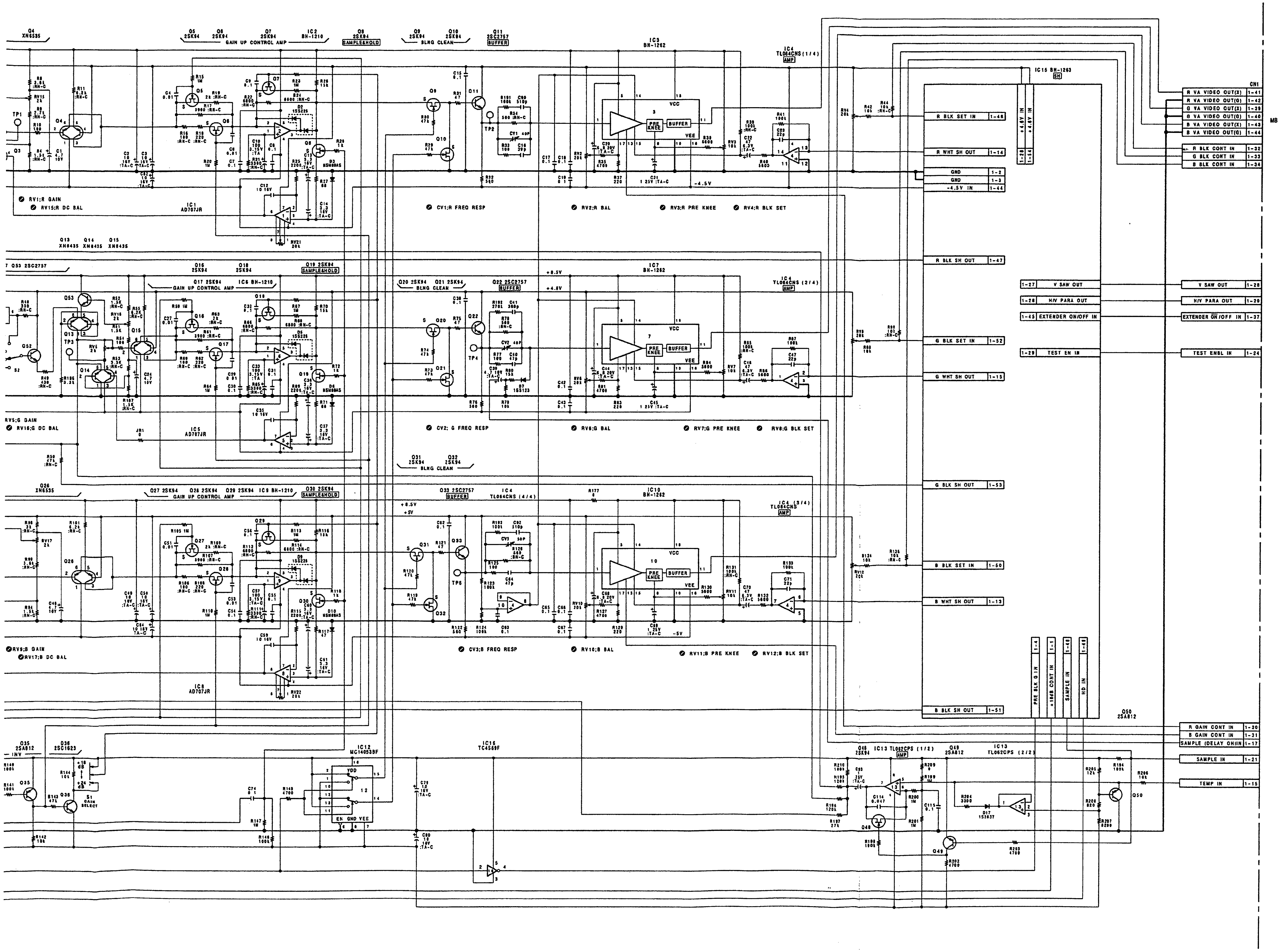
BVW-400A (UC);#10001-
BVW-400A (J) ;#30001-
BVW-400AP(EK);#40001-

VA-104;VIDEO AMP,BLACK SET,SHADING COMPE


MB
CN1
1-3 +8.5V IN
1-4 +8.5V IN
1-47 +4.6V IN
1-48 +4.6V IN
1-6 R PA VIDEO IN(X)
1-7 R PA VIDEO IN(G)
1-27 TEST SAW IN
1-1 GND
1-2 GND
1-49 -4.5V IN
1-50 -4.5V IN
1-8 G PA VIDEO IN(X)
1-9 G PA VIDEO IN(G)
1-10 B PA VIDEO IN(X)
1-11 B PA VIDEO IN(G)
1-36 +9dB CONT IN
1-35 +18dB CONT IN
1-13 SH3
1-20 PRE BLK G IN
1-16 ND IN
Q45 2SC1623 BUFFER
Q1 XN6534 Q2 XN6535 Q3 XN6535 Q4 XN6535 DC AMP
Q5 2SK94 Q6 2SK94 Q7 2SK94 IC2 BH-1210 GAIN UP CONTROL AMP
Q8 2SK94 SAMPLE&HOLD
Q9 2SK94 Q10 2SK94 BLNG CLEAN
Q11 2SC2757 BUFFER
IC3 BH-1262
IC4 TL064CNS (1/4) AMP
PRE KNEE
BUFFER
VCC
VEE
LPF
FL1
TP1
TP2
E1
IC1 AD707JR
Q13 XN6435 Q14 XN6435 Q15 XN6435
RV1;R GAIN
RV15;R DC BAL
RV18;R TEST
CV1;R FREQ RESP
RV2;R BAL
RV3;R PRE KNEE
RV4;R BLK SET
R BLK SET IN
R WHT SH OUT
GND
GND
-4.5V IN
R BLK SH OUT
Q54 XN6435 Q51 2SC2757 Q12 2SA1226 Q52 2SC2757 Q53 2SC2757 DC AMP
DL1
Q16 2SK94 Q18 2SK94 Q17 2SK94 IC5 BH-1210 GAIN UP CONTROL AMP
Q19 2SK94 SAMPLE&HOLD
Q20 2SK94 Q21 2SK94 BLNG CLEAN
Q22 2SC2757 BUFFER
IC7 BH-1262
IC4 TL064CNS (2/4) AMP
IC5 AD707JR
TP3
TP4
RV5;G GAIN
RV16;G DC BAL
RV19;G TEST
CV2;G FREQ RESP
RV6;G BAL
RV7;G PRE KNEE
RV8;G BLK SET
G BLK SET IN
G WHT SH OUT
G BLK SH OUT
Q31 2SK94 Q32 2SK94 BLNG CLEAN
Q23 XN6534 Q24 XN6535 Q25 XN6535 Q26 XN6535 DC AMP
Q27 2SK94 Q28 2SK94 Q29 2SK94 IC9 BH-1210 GAIN UP CONTROL AMP
Q30 2SK94 SAMPLE&HOLD
Q33 2SC2757 BUFFER
IC4 TL064CNS (4/4)
IC10 BH-1262
IC4 TL064CNS (3/4) AMP
IC8 AD707JR
TP5
TP6
RV9;B GAIN
RV17;B DC BAL
RV20;B TEST
CV3;B FREQ RESP
RV10;B BAL
RV11;B PRE KNEE
RV12;B BLK SET
B BLK SET IN
B WHT SH OUT
B BLK SH OUT
IC17 TC7S08F
Q34 2SA812
Q35 2SA812 INV
Q36 2SC1623
S1 GAIN SELECT
+18 dB
+9 dB
IC12 MC14053BF
VDD
EN GND VEE
IC16 TC4S69F
Q48 2SK94 IC13 TL062CPS (1/2) AMP
Q49 2SA812
+8.5V
+4.6V
+5V
-4.5V
-5V

I
2
3
4
5
A
B
C
D
E
F
G
H

VA-104 VA-104


Q4 XN6535
Q5 2SK94
Q6 2SK94
Q7 2SK94
IC2 BH-1210
GAIN UP CONTROL AMP
Q8 2SK94
SAMPLE&HOLD
Q9 2SK94
Q10 2SK94
BLNG CLEAN
Q11 2SC2757
BUFFER
IC3 BH-1262
IC4 TL064CNS (1/4)
AMP
IC15 BH-1263
SH
CN1
MB
R VA VIDEO OUT(X) 1-41
R VA VIDEO OUT(G) 1-42
G VA VIDEO OUT(X) 1-39
G VA VIDEO OUT(G) 1-40
B VA VIDEO OUT(X) 1-43
B VA VIDEO OUT(G) 1-44
R BLK CONT IN 1-32
G BLK CONT IN 1-33
B BLK CONT IN 1-34
R BLK SET IN 1-46
R WHT SH OUT 1-14
GND 1-2
GND 1-3
-4.5V IN 1-44
+4.6V IN 1-28
+4.6V IN 1-54
TP1
TP2
PRE KNEE
BUFFER
VCC
VEE
IC1 AD707JR
RV1;R GAIN
RV15;R DC BAL
CV1;R FREQ RESP
RV2;R BAL
RV3;R PRE KNEE
RV4;R BLK SET
Q13 XN8435
Q14 XN8435
Q15 XN8435
Q53 2SC2757
Q16 2SK94
Q18 2SK94
Q19 2SK94
Q17 2SK94
IC6 BH-1210
Q20 2SK94
Q21 2SK94
Q22 2SC2757
IC7 BH-1262
IC4 TL064CNS (2/4)
R BLK SH OUT 1-47
1-27 V SAW OUT
V SAW OUT 1-28
1-26 H/V PARA OUT
H/V PARA OUT 1-29
1-45 EXTENDER ON/OFF IN
EXTENDER ON/OFF IN 1-37
G BLK SET IN 1-52
1-29 TEST EN IN
TEST ENBL IN 1-24
G WHT SH OUT 1-15
TP3
TP4
S2
IC5 AD707JR
RV5;G GAIN
RV16;G DC BAL
CV2; G FREQ RESP
RV6;G BAL
RV7;G PRE KNEE
RV8;G BLK SET
Q31 2SK94
Q32 2SK94
BLNG CLEAN
Q26 XN6535
Q27 2SK94
Q28 2SK94
Q29 2SK94
IC9 BH-1210
Q30 2SK94
Q33 2SC2757
IC4 TL064CNS (4/4)
IC10 BH-1262
IC4 TL064CNS (3/4)
G BLK SH OUT 1-53
B BLK SET IN 1-50
B WHT SH OUT 1-13
TP5
IC8 AD707JR
RV9;B GAIN
RV17;B DC BAL
CV3;B FREQ RESP
RV10;B BAL
RV11;B PRE KNEE
RV12;B BLK SET
PRE BLK G.IN 1-4
+18dB CONT IN 1-1
SAMPLE IN 1-48
HD IN 1-49
B BLK SH OUT 1-51
Q50 2SA812
R GAIN CONT IN 1-30
B GAIN CONT IN 1-31
SAMPLE (DELAY OH)IN 1-17
SAMPLE IN 1-21
TEMP IN 1-15
Q35 2SA812
Q36 2SC1623
-INV
S1 GAIN SELECT
IC12 MC14053BF
IC16 TC4S69F
Q45 2SK94
IC13 TL062CPS (1/2)
AMP
Q49 2SA812
IC13 TL062CPS (2/2)
Q48
Q49
D17 1S1837
EN GND VEE
VDD

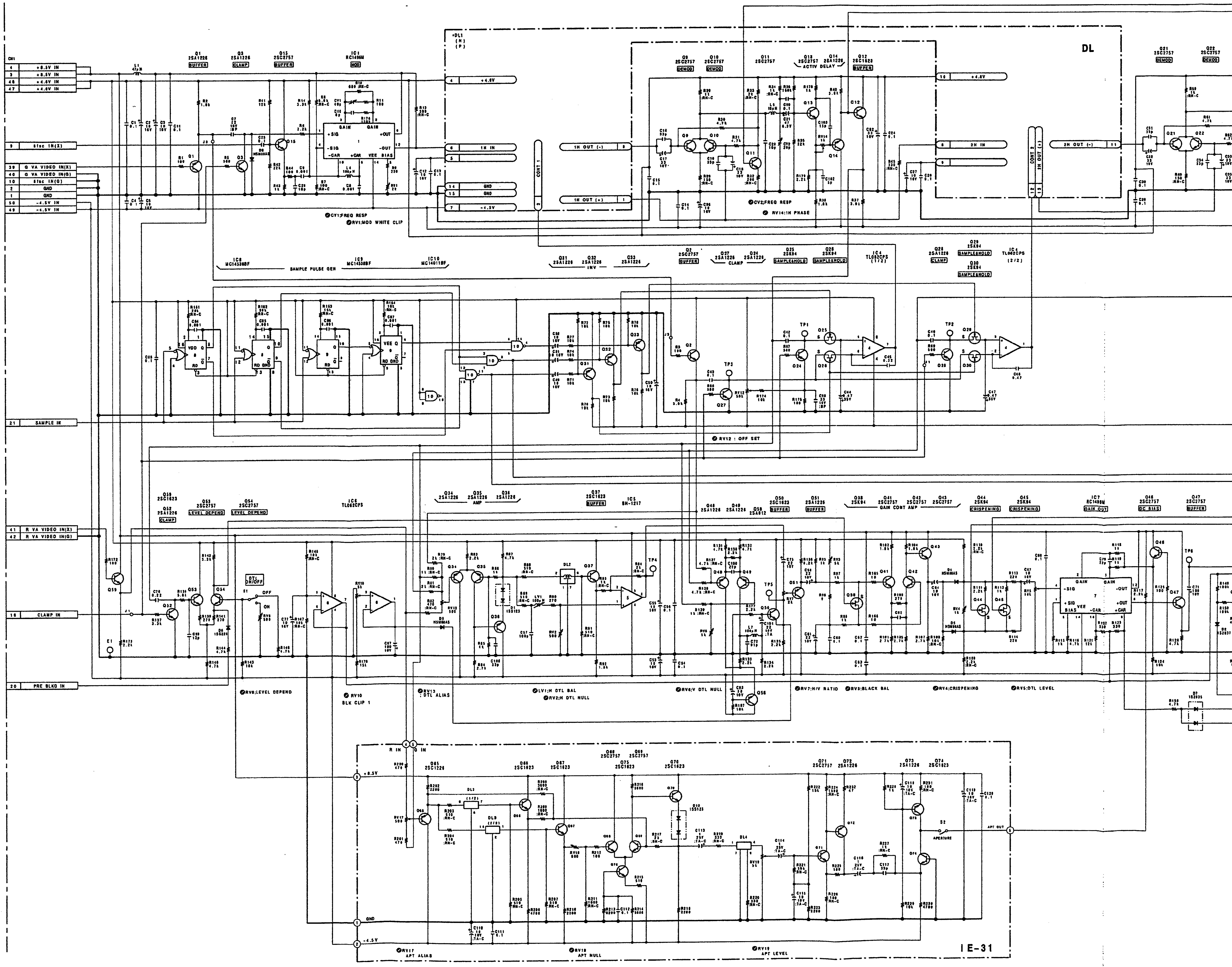
MARK	CHANGE PARTS	SERIAL No.
*1	R215 1k ADDED	40132-

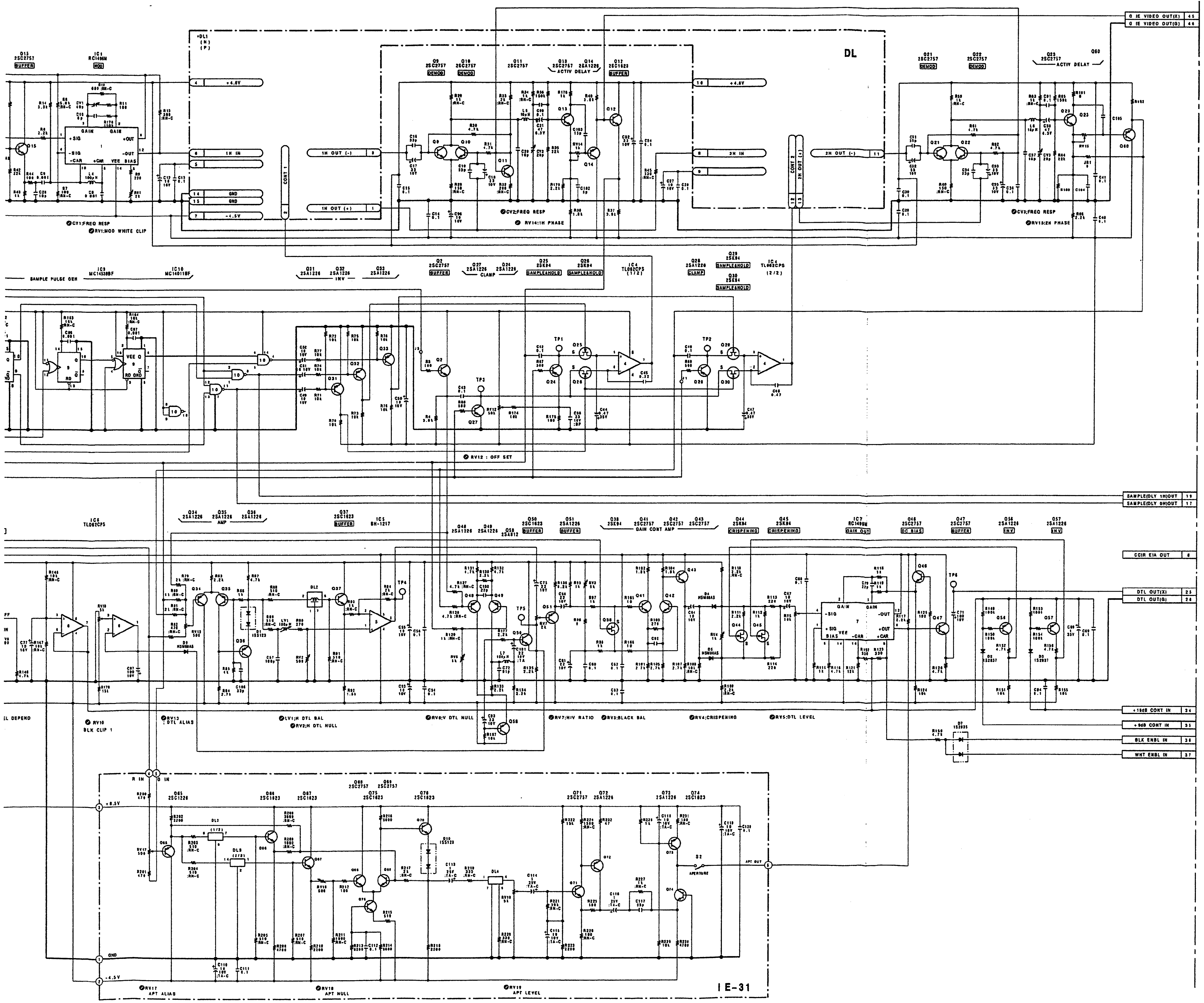
VA-104 BOARD

1-634-965-14,15

BVW-400AR(EK);#40001-

IE-30P;IMAGE ENHANCER
IE-31;APERTURE


+8.5V IN
+4.6V IN
SCc IN(X)
Q VA VIDEO IN(X)
Q VA VIDEO IN(G)
SCc IN(G)
GND
-4.5V IN
SAMPLE IN
R VA VIDEO IN(X)
R VA VIDEO IN(G)
CLAMP IN
PRE BLKG IN
DL
1H IN
1H OUT (-)
1H OUT (+)
2H IN
2H OUT (-)
SAMPLE PULSE GEN
CV1:FREQ RESP
RV1:MOD WHITE CLIP
CV2:FREQ RESP
RV14:1H PHASE
RV12 : OFF SET
RV6:LEVEL DEPEND
RV10 BLK CLIP 1
RV13 : DTL ALIAS
LV1:H DTL BAL
RV2:H DTL NULL
RV8:V DTL NULL
RV7:H/V RATIO
RV3:BLACK BAL
RV4:CRISPENING
RV5:DTL LEVEL
R IN
G IN
APT OUT
APERTURE
RV17 APT ALIAS
RV18 APT NULL
RV19 APT LEVEL
IE-31

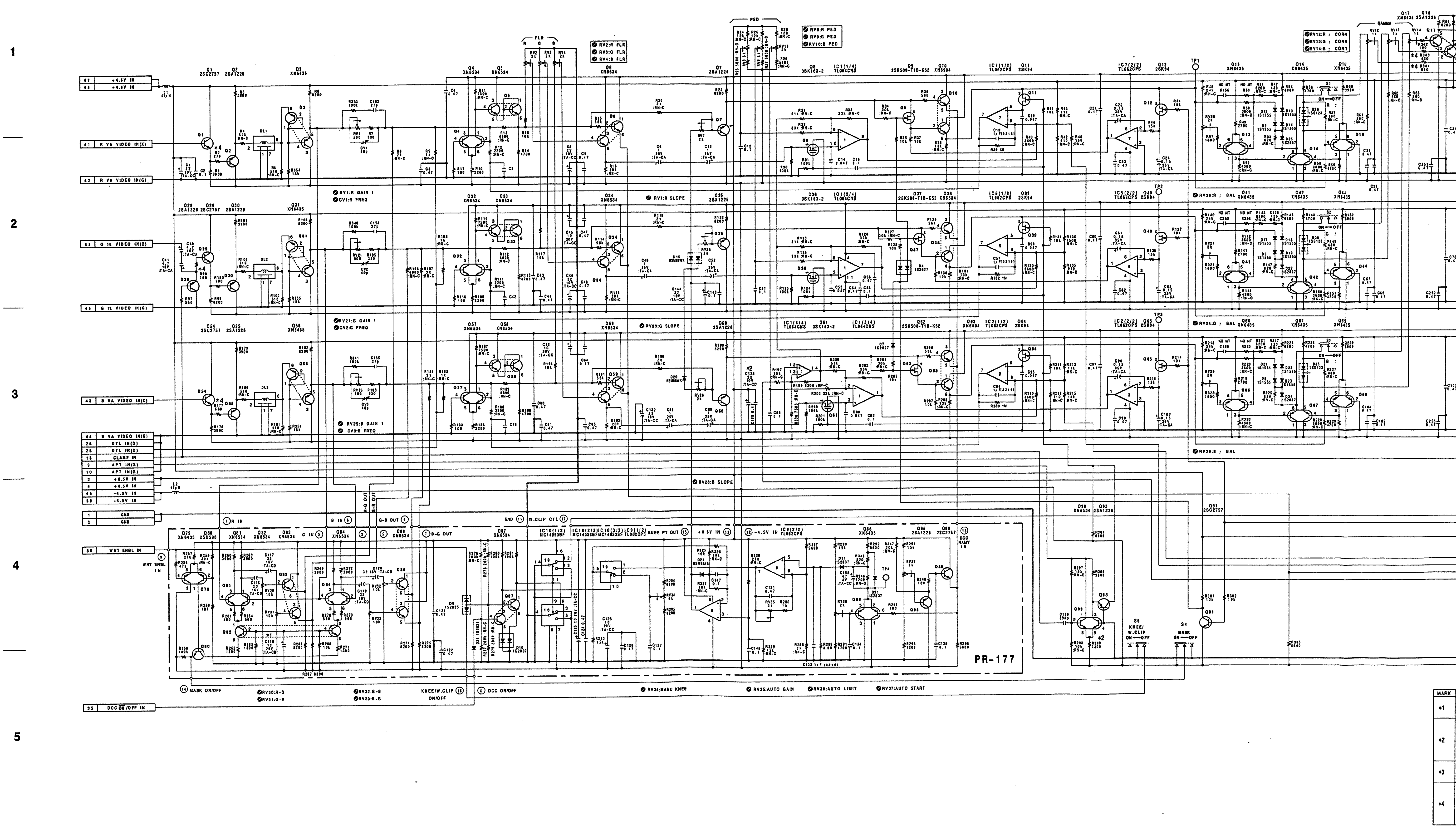

IE VIDEO OUT(X) 45
IE VIDEO OUT(G) 46
DL
SAMPLE(DLY 1H)OUT 19
SAMPLE(DLY 0H)OUT 17
CCIR EIA OUT 6
DTL OUT(X) 25
DTL OUT(G) 24
+18dB CONT IN 34
+9dB CONT IN 35
BLK ENBL IN 36
WHT ENBL IN 37
1H OUT (-)
1H OUT (+)
2H OUT (-)
2H IN
1H IN
+4.8V
-4.5V
GND
ACTIV DELAY
BUFFER
DEMOD
SAMPLE PULSE GEN
INV
CLAMP
SAMPLE&HOLD
AMP
GAIN CONT AMP
CRISPENING
GAIN OUT
DC BIAS
RV12 : OFF SET
CV1:FREQ RESP
RV1:MOD WHITE CLIP
CV2:FREQ RESP
RV14:1H PHASE
CV3:FREQ RESP
RV15:2H PHASE
RV10 BLK CLIP 1
RV13 : DTL ALIAS
LV1:H DTL BAL
RV2:H DTL NULL
RV6:V DTL NULL
RV7:H/V RATIO
RV3:BLACK BAL
RV4:CRISPENING
RV5:DTL LEVEL
R IN
G IN
+8.5V
GND
-4.5V
APT OUT
APERTURE
RV17 APT ALIAS
RV18 APT NULL
RV19 APT LEVEL
IE-31

IE-30P BOARD
1-634-946-12

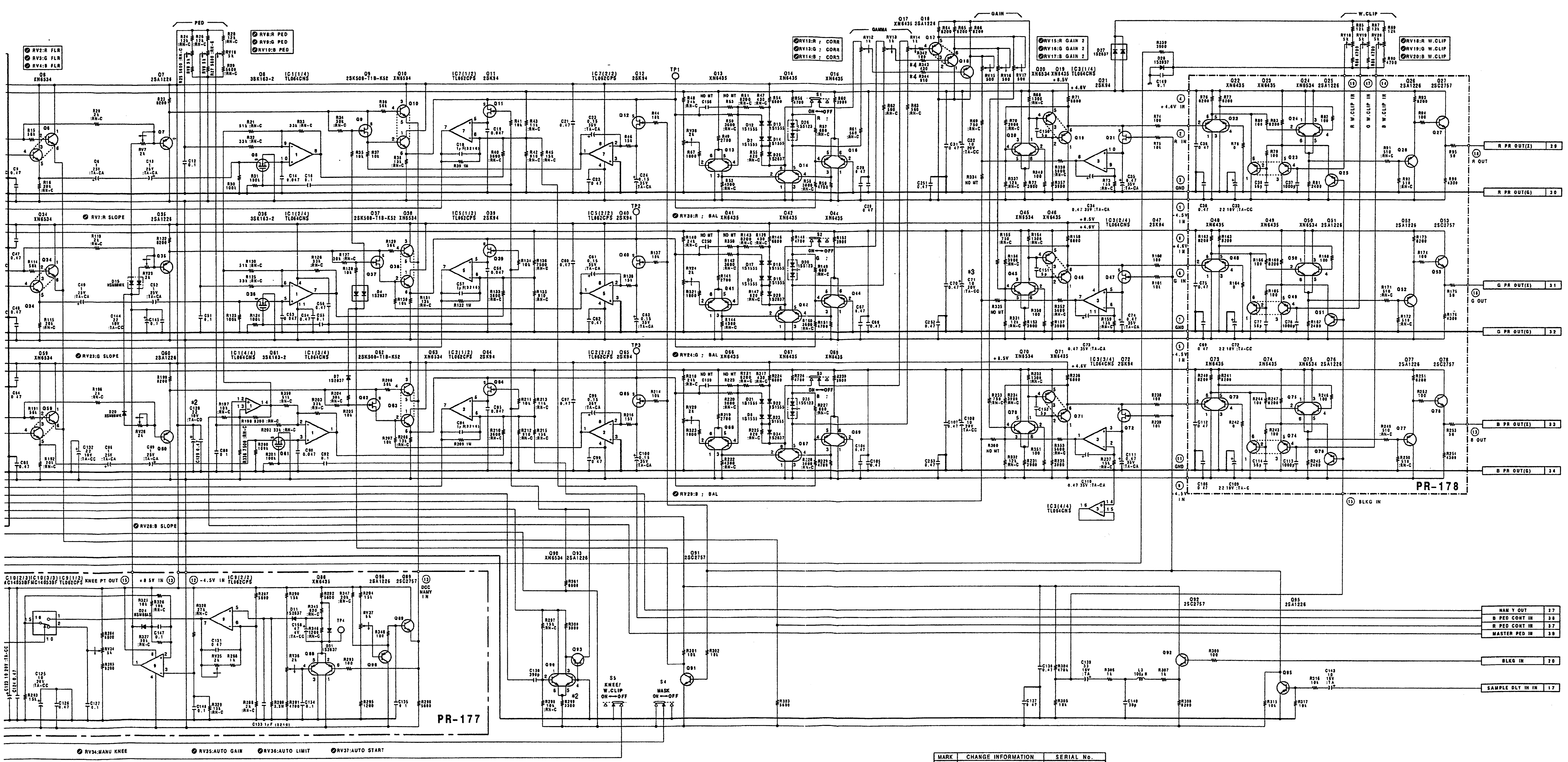
IE-31
1-636-346-11

BVW-400AP(EK);#40001-

PR-176/176U,PR-177,PR-178;GAMMA,MASKING,KNEE,SLOPE,W CPU,DCC


1
2
3
4
5
47 +4.8V IN
48 +4.8V IN
41 R VA VIDEO IN(X)
42 R VA VIDEO IN(G)
45 G IE VIDEO IN(X)
46 G IE VIDEO IN(G)
43 B VA VIDEO IN(X)
44 B VA VIDEO IN(G)
26 DTL IN(G)
25 DTL IN(X)
13 CLAMP IN
9 APT IN(X)
10 APT IN(G)
3 +8.5V IN
4 +8.5V IN
49 -4.5V IN
50 -4.5V IN
1 GND
2 GND
38 WHT ENBL IN
35 DCC ON/OFF IN
FLR
PED
GAMMA
RV2:R FLR
RV3:G FLR
RV4:B FLR
RV8:R PED
RV9:G PED
RV10:B PED
RV12:R ; CORR
RV13:G ; CORR
RV14:B ; CORR
RV1:R GAIN 1
CV1:R FREQ
RV21:G GAIN 1
CV2:G FREQ
RV25:B GAIN 1
CV3:B FREQ
RV7:R SLOPE
RV23:G SLOPE
RV28:B SLOPE
RV38:R ; BAL
RV24:G ; BAL
RV29:B ; BAL
TP1
TP2
TP3
TP4
MASK ON/OFF
RV30:R-G
RV31:G-R
RV32:G-B
RV33:B-G
KNEE/W.CLIP ON/OFF
DCC ON/OFF
RV34:MANU KNEE
RV35:AUTO GAIN
RV36:AUTO LIMIT
RV37:AUTO START
S5 KNEE/W.CLIP ON—OFF
S4 MASK ON—OFF
PR-177
MARK
*1
*2
*3
*4
A
B
C
D
E
F
G
H

J,DCC


PED
GAIN
GAMMA
W.CLIP
RV2:R FLR
RV3:G FLR
RV4:B FLR
RV8:R PED
RV9:G PED
RV10:B PED
RV12:R ; CORR
RV13:G ; CORR
RV14:B ; CORR
RV15:R GAIN 2
RV16:G GAIN 2
RV17:B GAIN 2
RV18:R W.CLIP
RV19:G W.CLIP
RV20:B W.CLIP
RV7:R SLOPE
RV23:G SLOPE
RV28:B SLOPE
RV38:R ; BAL
RV24:G ; BAL
RV29:B ; BAL
RV34:MANU KNEE
RV35:AUTO GAIN
RV36:AUTO LIMIT
RV37:AUTO START
TP1
TP2
TP3
TP4
S1
S2
S3
S4 MASK ON OFF
S5 KNEE/W.CLIP ON OFF
R PR OUT(X) 28
R PR OUT(G) 30
G PR OUT(X) 31
G PR OUT(G) 32
B PR OUT(X) 33
B PR OUT(G) 34
R OUT
G OUT
B OUT
BLKG IN
NAM Y OUT 27
B PED CONT IN 38
R PED CONT IN 37
MASTER PED IN 39
BLKG IN 20
SAMPLE DLY IN IN 17
KNEE PT OUT
+8.5V IN
-4.5V IN
DCC NAMY IN
PR-177
PR-178

MARK	CHANGE INFORMATION	SERIAL No.
*1	C118 10 → 10 10V 20V	40032-
*2	C128 33 → 22 16V 10V R299 4700 → 3300	40082-
*3	C71 10 16V → 10 20V	40132-
*4	R2 100 → 270 R98 560 → 100 R177 100 → 680 R343 100 → 430 R344 100 → 910	40182-

PR-176/176U BOARD

1-643-715-11,12

PR-177 BOARD

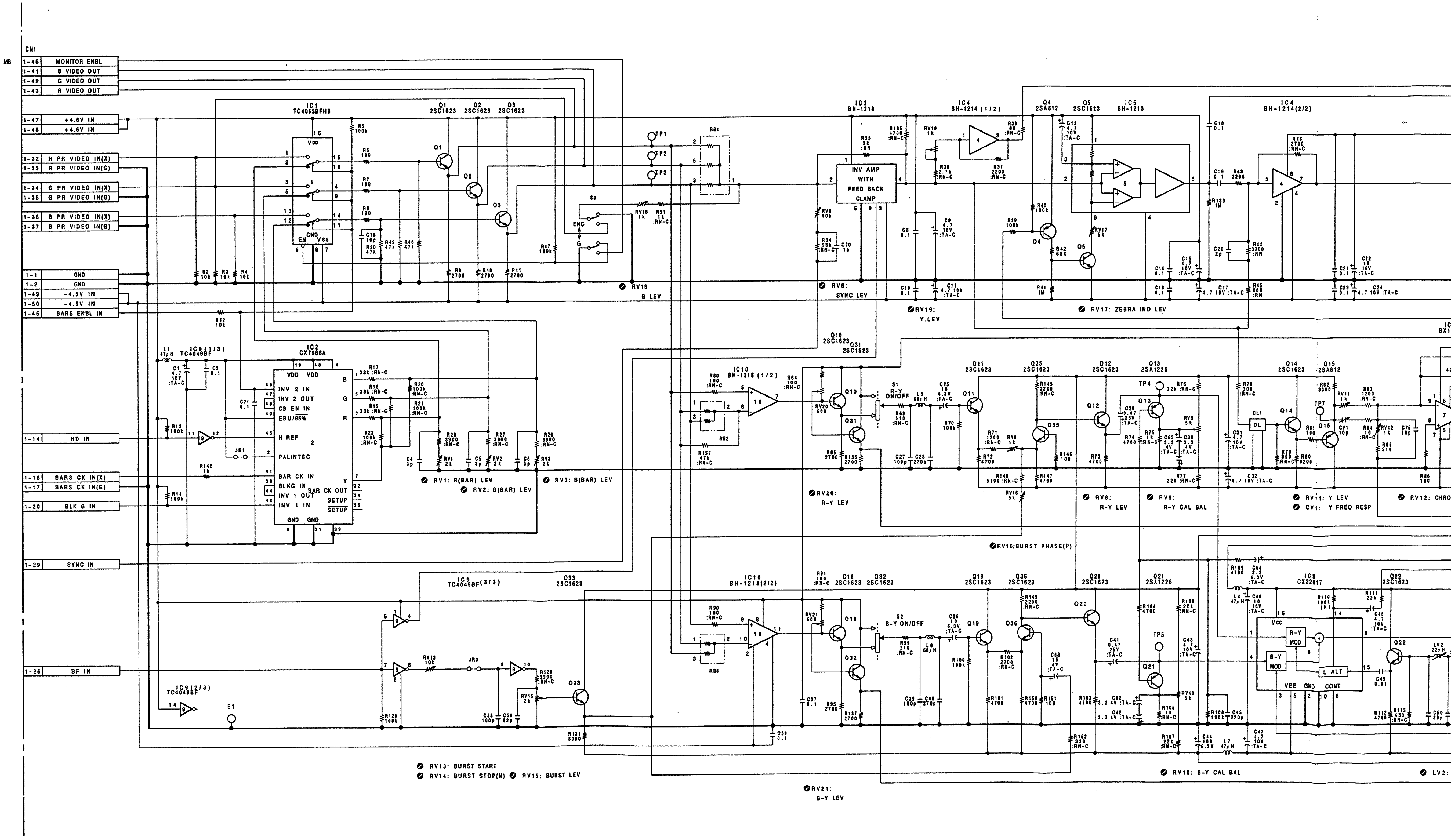
1-643-701-11

PR-178 BOARD

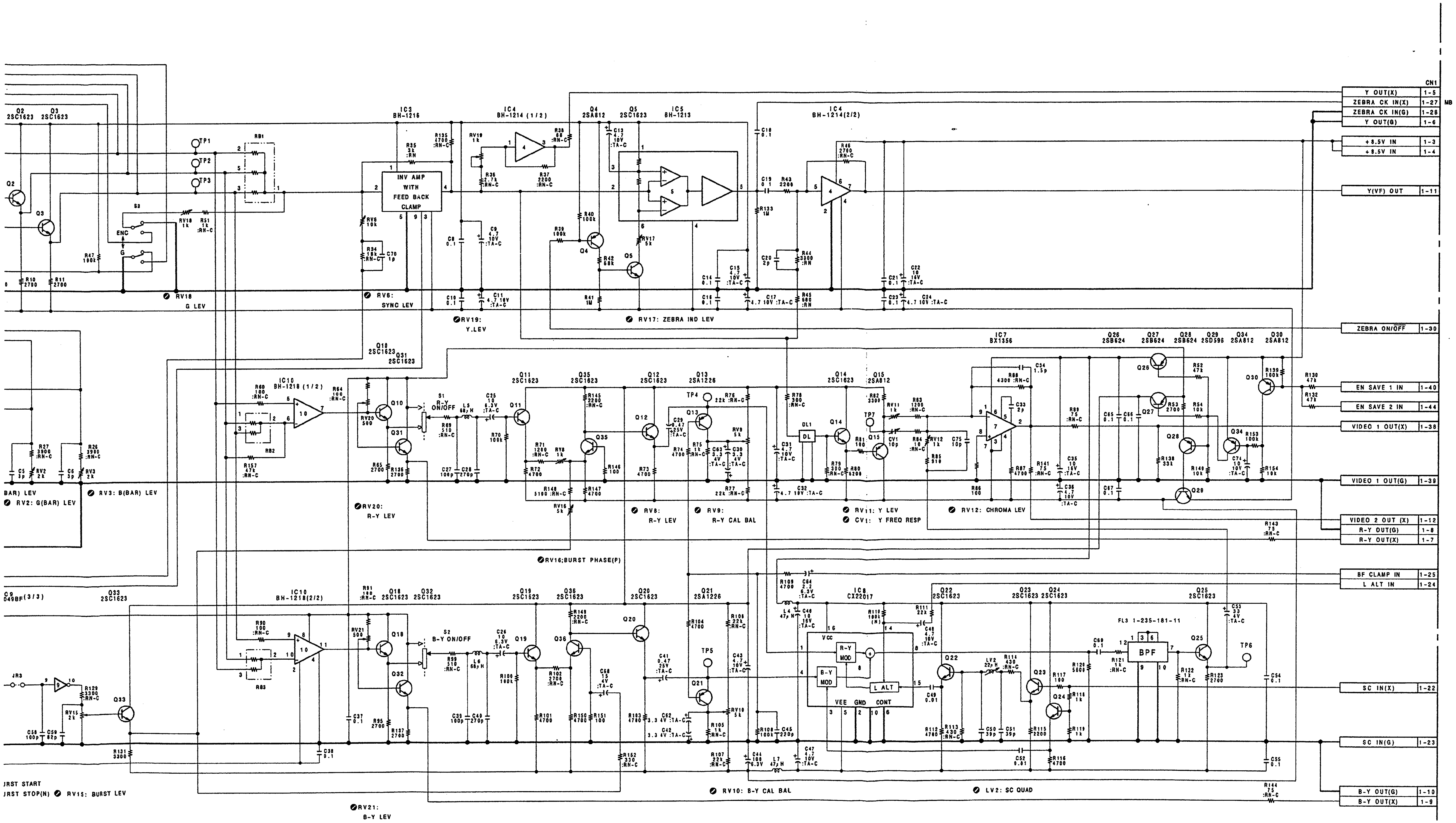
1-643-702-11

BVW-400AP(EK);#40001-

EN-79P;Y/R-Y/B-Y SIGNAL GEN,ENCODER,CB GEN


CN1
MB
1-46 MONITOR ENBL
1-41 B VIDEO OUT
1-42 G VIDEO OUT
1-43 R VIDEO OUT
1-47 +4.6V IN
1-48 +4.6V IN
1-32 R PR VIDEO IN(X)
1-33 R PR VIDEO IN(G)
1-34 G PR VIDEO IN(X)
1-35 G PR VIDEO IN(G)
1-36 B PR VIDEO IN(X)
1-37 B PR VIDEO IN(G)
1-1 GND
1-2 GND
1-49 -4.5V IN
1-50 -4.5V IN
1-45 BARS ENBL IN
1-14 HD IN
1-16 BARS CK IN(X)
1-17 BARS CK IN(G)
1-20 BLK G IN
1-29 SYNC IN
1-26 BF IN
IC1 TC4053BFHB
Q1 2SC1623
Q2 2SC1623
Q3 2SC1623
IC2 CX7958A
IC9 (1/3) TC4049BF
IC9 (2/3) TC4049BF
IC9 TC4049BF(3/3)
Q33 2SC1623
S3
ENC
TP1
TP2
TP3
RB1
RB2
RB3
RV18 G LEV
RV1: R(BAR) LEV
RV2: G(BAR) LEV
RV3: B(BAR) LEV
RV13: BURST START
RV14: BURST STOP(N)
RV15: BURST LEV
IC3 BH-1216
INV AMP WITH FEED BACK CLAMP
RV6: SYNC LEV
IC4 BH-1214 (1/2)
RV19: Y.LEV
Q4 2SA812
Q5 2SC1623
IC5 BH-1213
RV17: ZEBRA IND LEV
IC4 BH-1214(2/2)
Q10 2SC1623
Q31 2SC1623
IC10 BH-1218 (1/2)
S1 R-Y ON/OFF
RV20: R-Y LEV
Q11 2SC1623
Q35 2SC1623
Q12 2SC1623
Q13 2SA1226
TP4
RV8: R-Y LEV
RV9: R-Y CAL BAL
RV16;BURST PHASE(P)
DL1
Q14 2SC1623
Q15 2SA812
TP7
RV11: Y LEV
CV1: Y FREQ RESP
RV12: CHRO
IC10 BH-1218(2/2)
Q18 2SC1623
Q32 2SC1623
S2 B-Y ON/OFF
Q19 2SC1623
Q36 2SC1623
Q20 2SC1623
Q21 2SA1226
TP5
RV21: B-Y LEV
RV10: B-Y CAL BAL
IC8 CX22017
R-Y MOD
B-Y MOD
L ALT
VCC
VEE GND CONT
Q22 2SC1623
LV2:
E1
JR1
JR3
INV 2 IN
INV 2 OUT
CB EN IN
EBU/95%
H REF
PAL/NTSC
BAR CK IN
BLKG IN
INV 1 OUT
INV 1 IN
BAR CK OUT
SETUP
VDD
GND

A | B | C | D | E | F | G | H


Q2 2SC1623
Q3 2SC1623
TP1
TP2
TP3
RB1
S3
ENC
G
RV18 1k
R51 1k :RN-C
R47 100k
R10 2700
R11 2700
RV18 G LEV
IC3 BH-1216
INV AMP WITH FEED BACK CLAMP
RV6 10k
R34 18k :RN-C
C70 1p
RV6: SYNC LEV
IC4 BH-1214 (1/2)
RV19 1k
R36 2.7k :RN-C
R37 2200 :RN-C
R38 68 :RN-C
RV19: Y.LEV
Q4 2SA812
Q5 2SC1623
IC5 BH-1213
R40 100k
R39 100k
R42 68k
R41 1M
RV17 5k
RV17: ZEBRA IND LEV
IC4 BH-1214(2/2)
R46 2700 :RN-C
R43 2200
R133 1M
R44 3300 :RN
R45 680 :RN
C18 0.1
C19 0.1
C20 2p
C22 10 16V :TA-C
C24 4.7 10V :TA-C
Q18 2SC1623
Q31 2SC1623
IC10 BH-1218 (1/2)
R60 100 :RN-C
R64 100 :RN-C
RB2
R157 47k :RN-C
RV20 500
R65 2700
R136 2700
S1 R-Y ON/OFF
R69 510 :RN-C
L5 68μH
C25 10 6.3V :TA-C
C27 100p
C28 270p
R70 100k
RV20: R-Y LEV
Q11 2SC1623
Q35 2SC1623
R145 2200 :RN-C
R71 1200 :RN-C
RV8 1k
R72 4700
R146 100
R147 4700
R148 5100 :RN-C
RV16 5k
RV16;BURST PHASE(P)
Q12 2SC1623
Q13 2SA1226
TP4
R76 22k :RN-C
C29 0.47 25V :TA-C
R73 4700
R74 4700 :RN-C
R75 1k :RN-C
C63 3.3 4V :TA-C
C30 3.3 4V :TA-C
RV9 5k
R77 22k :RN-C
RV8: R-Y LEV
RV9: R-Y CAL BAL
R78 300 :RN-C
C31 4.7 10V :TA-C
DL1
DL
C32 4.7 10V :TA-C
Q14 2SC1623
Q15 2SA812
R82 3300
TP7
RV11 1k
R81 100
CV1 10p
R79 3300 :RN-C
R80 6200
R83 1200 :RN-C
R84 10k :RN-C
RV12 1k
R85 510
C75 10p
R86 100
RV11: Y LEV
CV1: Y FREQ RESP
RV12: CHROMA LEV
IC7 BX1356
C34 1.5p
R88 4300 :RN-C
C33 2p
R87 4700 :RN-C
R89 75 :RN-C
R141 75 :RN-C
C35 10 16V :TA-C
C36 4.7 10V :TA-C
Q26 2SB624
Q27 2SB624
Q28 2SB624
Q29 2SD596
Q34 2SA812
Q30 2SA812
C65 0.1
C66 0.1
C67 0.1
R52 47k
R53 2700
R54 10k
R138 33k
R140 10k
R139 100k
R153 100k
C74 10 10V :TA-C
R154 10k
R130 47k
R132 47k
R143 75 :RN-C
C9 049BF(3/3)
Q33 2SC1623
IC10 BH-1218(2/2)
R90 100 :RN-C
RB3
R91 100 :RN-C
Q18 2SC1623
Q32 2SC1623
RV21 500
S2 B-Y ON/OFF
R99 510 :RN-C
L6 68μH
C26 10 6.3V :TA-C
C39 100p
C40 270p
C37 0.1
R95 2700
R137 2700
RV21: B-Y LEV
Q19 2SC1623
Q36 2SC1623
R100 100k
R101 4700
R102 2700 :RN-C
R149 2200 :RN-C
R150 4700
R151 100
C68 15 4V :TA-C
Q20 2SC1623
R103 4700
R152 330 :RN-C
Q21 2SA1226
TP5
C41 0.47 25V :TA-C
R104 4700
R106 22k :RN-C
C43 4.7 10V :TA-C
C62 3.3 4V :TA-C
C42 3.3 4V :TA-C
RV10 5k
R105 1k :RN-C
R107 22k :RN-C
C44 100 6.3V
L7 47μH
C45 220p
C47 4.7 10V :TA-C
R108 100k
R109 4700
C64 2.2 6.3V :TA-C
L4 47μH
C46 10 10V :TA-C
RV10: B-Y CAL BAL
IC8 CX22017
VCC
R-Y MOD
B-Y MOD
L ALT
VEE GND CONT
R110 1001 (N)
R111 22k
C48 4.7 10V :TA-C
C49 0.01
Q22 2SC1623
LV2 22μH
R114 430 :RN-C
R113 430 :RN-C
R112 4700
C50 39p
C51 39p
C52 0.01
LV2: SC QUAD
Q23 2SC1623
Q24 2SC1623
R117 100
R118 1k
R119 1k
R115 2200
R116 4700
R120 5600
FL3 1-235-181-11
BPF
C69 0.1
R121 1k :RN-C
R122 1k :RN-C
Q25 2SC1623
R123 2700
C53 33 4V :TA-C
TP6
C54 0.1
C55 0.1
R144 75 :RN-C
R131 3300
C38 0.1
JR3
IC9
R129 3300 :RN-C
RV15 2k
C58 100p
C59 82p
R27 3900 :RN-C
R26 3900 :RN-C
RV2 2k
RV3 2k
C5 3p
C6 3p
BAR) LEV
RV2: G(BAR) LEV
RV3: B(BAR) LEV
JRST START
JRST STOP(N)
RV15: BURST LEV
CN1
MB
Y OUT(X) 1-5
ZEBRA CK IN(X) 1-27
ZEBRA CK IN(G) 1-28
Y OUT(G) 1-6
+8.5V IN 1-3
+8.5V IN 1-4
Y(VF) OUT 1-11
ZEBRA ON/$\overline{\text{OFF}}$ 1-30
EN SAVE 1 IN 1-40
EN SAVE 2 IN 1-44
VIDEO 1 OUT(X) 1-38
VIDEO 1 OUT(G) 1-39
VIDEO 2 OUT (X) 1-12
R-Y OUT(G) 1-8
R-Y OUT(X) 1-7
BF CLAMP IN 1-25
L ALT IN 1-24
SC IN(X) 1-22
SC IN(G) 1-23
B-Y OUT(G) 1-10
B-Y OUT(X) 1-9

EN-79P BOARD

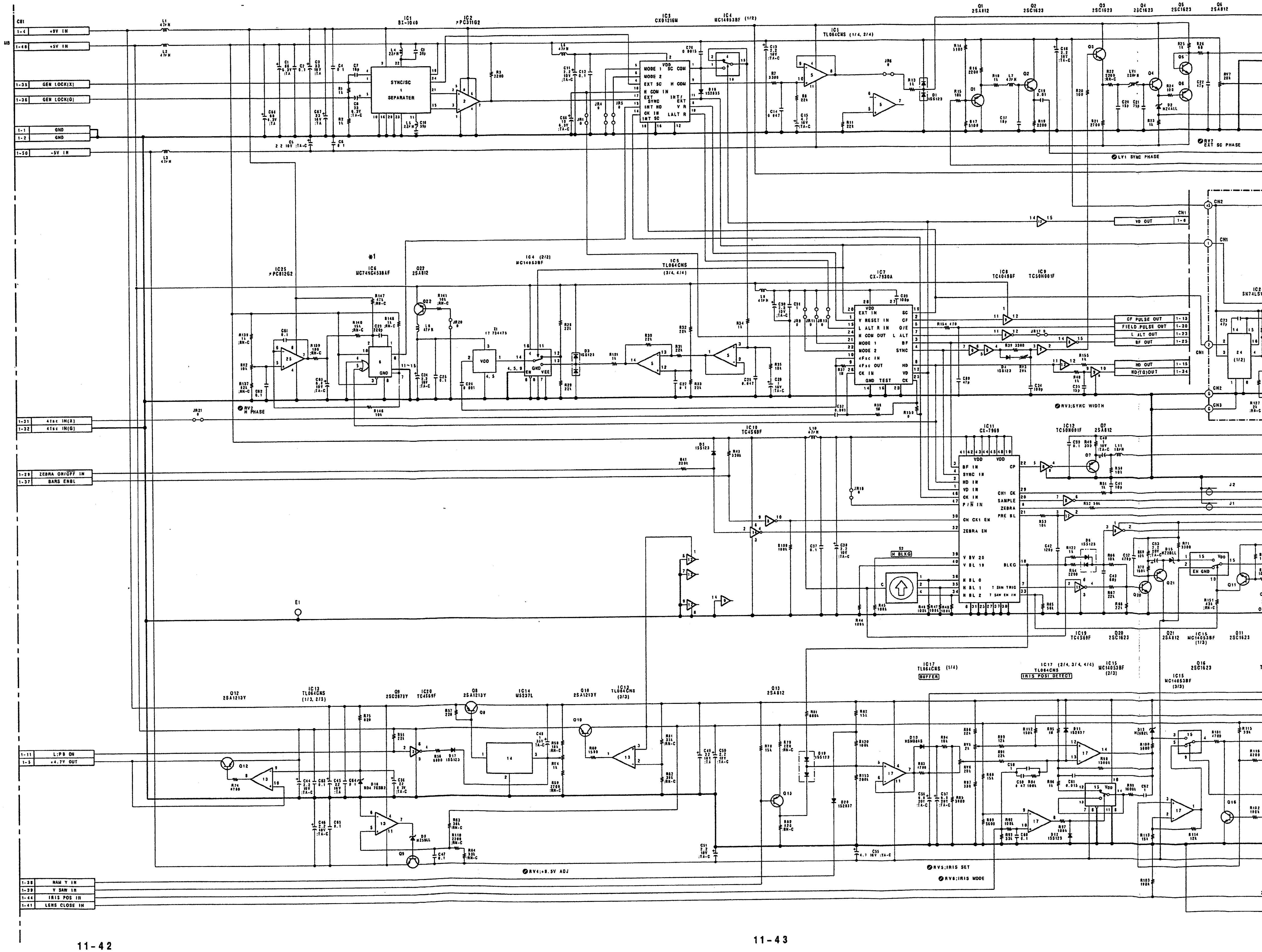
1-629-727-14

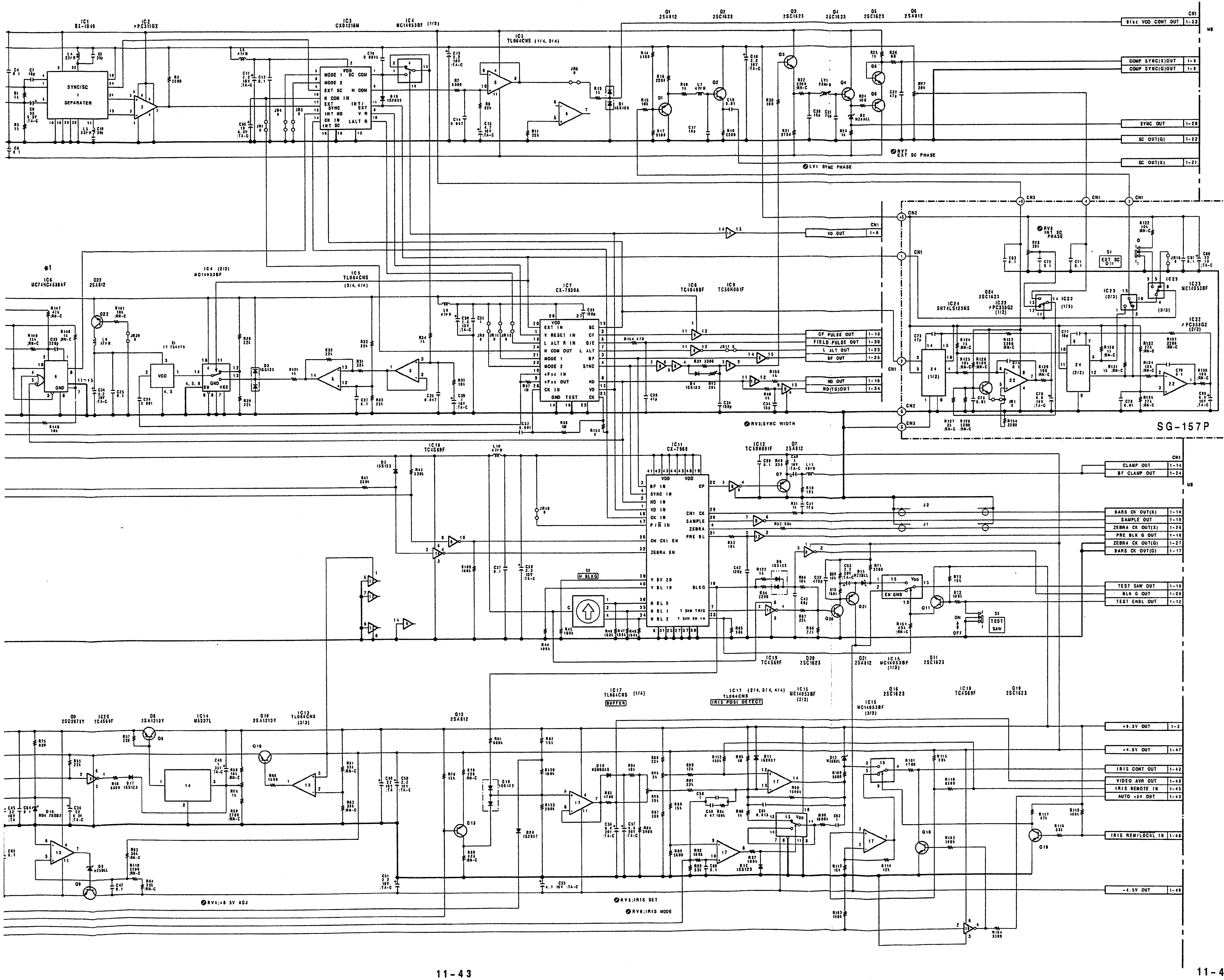
BVW-400AP (EK);#40001-

SG-152AP;SYNC GEN
SG-157P;SC PHASE

SG-152AP BOARD

MARK	CHANGE INFORMATION	SERIAL NO.
*1	IC6 MC74HC4538F ↓ MC74HC4538AF	EK:40822-


CN1
+9V IN
+5V IN
GEN LOCK(X)
GEN LOCK(G)
GND
-5V IN
4fsc IN(X)
4fsc IN(G)
ZEBRA ON/OFF IN
BARS ENBL
L:PB ON
+4.7V OUT
NAM V IN
V SAW IN
IRIS POS IN
LENS CLOSE IN
IC1 BZ-1049
SYNC/SC SEPARATER
IC2 μPC311G2
IC3 CXD1216M
IC4 MC14053BF (1/2)
IC5 TL064CNS (1/4, 2/4)
IC25 μPC812G2
IC6 MC74HC4538AF
Q22 2SA812
IC4 (2/2) MC14053BF
IC5 TL064CNS (3/4, 4/4)
IC7 CX-7930A
IC8 TC4049BF
IC9 TC5OH001F
IC11 CX-7969
IC12 TC5OH001F
IC10 TC4S69F
IC13 TL064CNS
IC14 M5237L
IC17 TL064CNS
IC15 MC14053BF
IC19 TC4S69F
IC20 TC4S69F
Q1 2SA812
Q2 2SC1623
Q3 2SC1623
Q4 2SC1623
Q5 2SC1623
Q6 2SA812
Q7 2SA812
Q8 2SA1213Y
Q9 2SC2873Y
Q10 2SA1213Y
Q12 2SA1213Y
Q13 2SA812
Q16 2SC1623
Q20 2SC1623
Q21 2SA812
Q11 2SC1623
RV1 SYNC PHASE
RV7 EXT SC PHASE
RV2 H PHASE
RV3 SYNC WIDTH
RV4 +8.5V ADJ
RV5 IRIS SET
RV6 IRIS MODE
CF PULSE OUT
FIELD PULSE OUT
L ALT OUT
BF OUT
VD OUT
HD OUT
HD(TG)OUT
S2 H BLKG
E1
BUFFER
IRIS POSI DETECT
CN2
CN3
J1
J2


IC1 BX-1040
IC2 μPC311G2
SYNC/SC SEPARATER
IC3 CXD1216M
IC4 MC14053BF (1/2)
IC5 TL064CNS (1/4, 2/4)
Q1 2SA812
Q2 2SC1623
Q3 2SC1623
Q4 2SC1623
Q5 2SC1623
Q6 2SA812
CN1
81sc VCO CONT OUT 1-33
COMP SYNC(X)OUT 1-8
COMP SYNC(G)OUT 1-9
SYNC OUT 1-28
SC OUT(G) 1-22
SC OUT(X) 1-21
RV7 EXT SC PHASE
LV1 SYNC PHASE
VD OUT 1-6
IC6 MC74HC4538AF
Q22 2SA812
IC4 (2/2) MC14053BF
IC5 TL064CNS (3/4, 4/4)
IC7 CX-7930A
IC8 TC4049BF
IC9 TC5OH001F
VCO
CF PULSE OUT 1-13
FIELD PULSE OUT 1-30
L ALT OUT 1-23
BF OUT 1-25
HD OUT 1-16
HD(TG)OUT 1-34
RV3;SYNC WIDTH
CN2
CN3
RV8 IN1 SC PHASE
S4 EXT SC
IC24 SN74LS123NS
Q24 2SC1623
IC22 μPC358G2 (1/2)
IC23 MC14053BF
IC22 μPC358G2 (2/2)
SG-157P
IC10 TC4S69F
IC11 CX-7969
IC12 TC5OH001F
Q7 2SA812
CLAMP OUT 1-14
BF CLAMP OUT 1-24
J2
J1
BARS CK OUT(X) 1-14
SAMPLE OUT 1-15
ZEBRA CK OUT(X) 1-26
PRE BLK G OUT 1-18
ZEBRA CK OUT(G) 1-27
BARS CK OUT(G) 1-17
S2 H BLKG
TEST SAW OUT 1-19
BLK G OUT 1-20
TEST ENBL OUT 1-12
S3 TEST SAW
ON OFF
IC19 TC4S69F
Q20 2SC1623
Q21 2SA812
IC15 MC14053BF (1/3)
Q11 2SC1623
IC17 TL064CNS (1/4) BUFFER
IC17 (2/4, 3/4, 4/4) TL064CNS IRIS POSI DETECT
IC15 MC14053BF (2/3)
IC15 MC14053BF (3/3)
Q16 2SC1623
IC18 TC4S69F
Q19 2SC1623
Q9 2SC2873Y
IC20 TC4S69F
Q8 2SA1213Y
IC14 M5237L
Q10 2SA1213Y
IC13 TL064CNS (3/3)
Q13 2SA812
+8.5V OUT 1-3
+4.8V OUT 1-47
IRIS CONT OUT 1-42
VIDEO AVR OUT 1-40
IRIS REMOTE IN 1-43
AUTO +5V OUT 1-43
IRIS REM/LOCAL IN 1-48
-4.5V OUT 1-49
RV4;+8 5V ADJ
RV5;IRIS SET
RV6;IRIS MODE
MB

SG-152AP BOARD

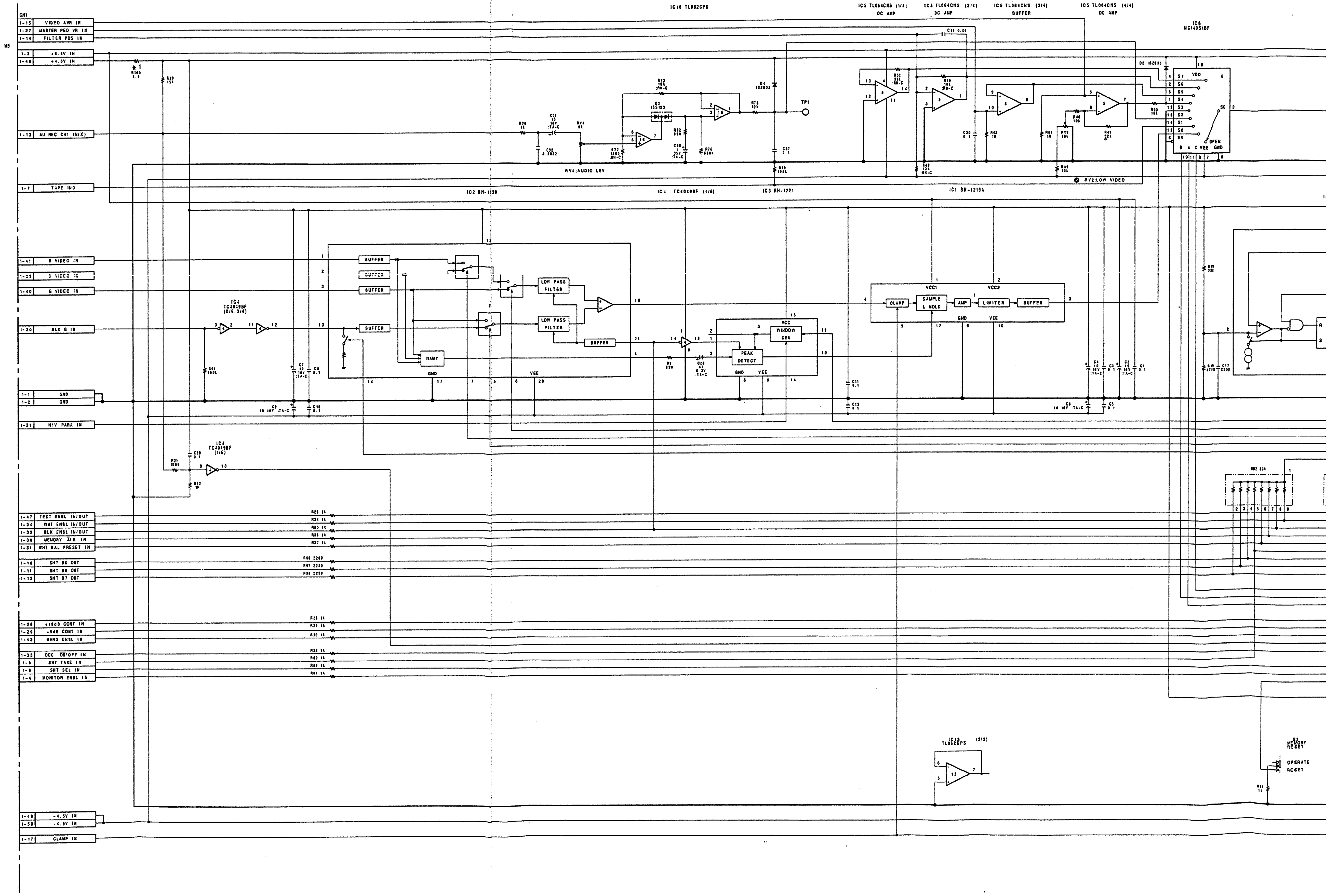
1-629-762-25

SG-157P BOARD

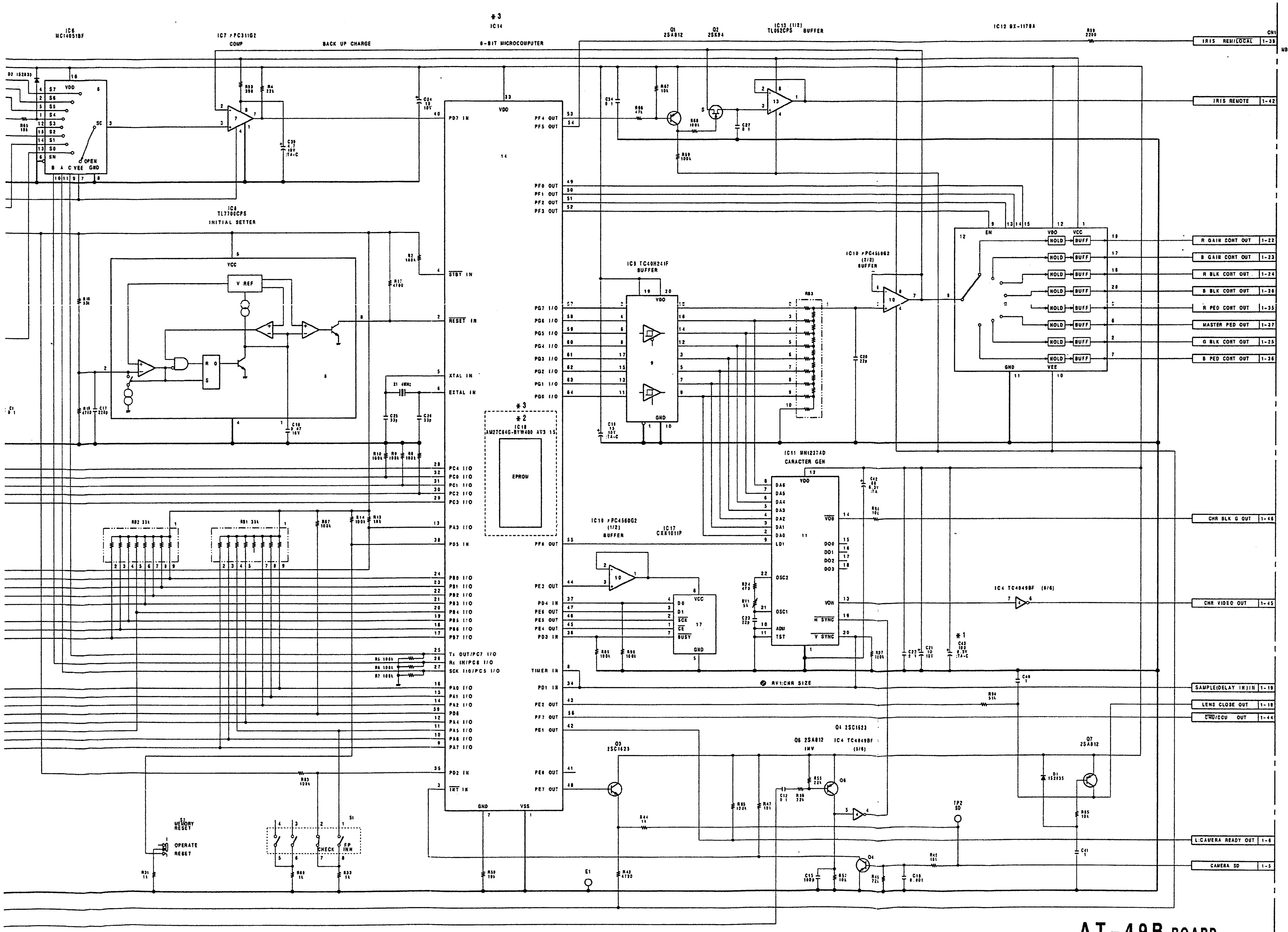
1-629-726-13

BVW-400AP (EK) ;#40001-

AT-49B;AUTO W/B, CHARA GEN, SYS-CON


CN1
1-15 VIDEO AVR IN
1-27 MASTER PED VR IN
1-14 FILTER POS IN
MB
1-3 +8.5V IN
1-48 +4.6V IN
*1 R100 3.9
R20 15k
1-13 AU REC CH1 IN(X)
1-7 TAPE IND
1-41 R VIDEO IN
1-25 B VIDEO IN
1-40 G VIDEO IN
IC4 TC4049BF (2/6, 3/6)
1-20 BLK G IN
R51 100k
1-1 GND
1-2 GND
1-21 H/V PARA IN
IC4 TC4049BF (1/6)
C29 0.1
R21 100k
R22 1M
1-47 TEST ENBL IN/OUT
1-34 WHT ENBL IN/OUT
1-32 BLK ENBL IN/OUT
1-30 MEMORY A/B IN
1-31 WHT BAL PRESET IN
1-10 SHT B5 OUT
1-11 SHT B6 OUT
1-12 SHT B7 OUT
R23 1k
R34 1k
R35 1k
R36 1k
R37 1k
R96 2200
R97 2200
R98 2200
1-28 +18dB CONT IN
1-29 +9dB CONT IN
1-43 BARS ENBL IN
R28 1k
R29 1k
R30 1k
1-33 DCC ON/OFF IN
1-8 SHT TAKE IN
1-9 SHT SEL IN
1-4 MONITOR ENBL IN
R32 1k
R60 1k
R62 1k
R61 1k
1-49 -4.5V IN
1-50 -4.5V IN
1-17 CLAMP IN
IC16 TL062CPS
R70 1k
C31 15 10V :TA-C
C32 0.0022
RV4 5k
RV4:AUDIO LEV
R72 1500 :RN-C
R73 10k :RN-C
D3 1SS123
R92 820
C38 1 35V :TA-C
R76 680k
R78 10k
D4 1S2835
C37 0.1
R79 100k
TP1
IC5 TL064CNS (1/4) DC AMP
IC5 TL064CNS (2/4) DC AMP
IC5 TL064CNS (3/4) BUFFER
IC5 TL064CNS (4/4) DC AMP
C14 0.01
R52 39k :RN-C
R49 10k :RN-C
R48 10k :RN-C
C30 0.1
R42 1M
R61 1M
RV2 10k
R39 10k
R40 10k
R41 22k
R55 10k
RV2:LOW VIDEO
D2 1S2835
IC6 MC14051BF
S7 S6 S5 S4 S3 S2 S1 S0 EN
VDD
SC
OPEN
B A C VEE GND
IC2 BH-1120
IC4 TC4049BF (4/6)
IC3 BH-1221
IC1 BH-1219A
BUFFER
BUFFER
BUFFER
BUFFER
LOW PASS FILTER
LOW PASS FILTER
BUFFER
NAMY
GND
VEE
C7 10 16V :TA-C
C8 0.1
C9 10 16V :TA-C
C10 0.1
R1 820
C28 47 6.3V :TA-C
VCC
WINDOW GEN
PEAK DETECT
GND
VEE
C11 0.1
C13 0.1
VCC1
VCC2
CLAMP
SAMPLE & HOLD
AMP
LIMITER
BUFFER
GND
VEE
C4 10 16V :TA-C
C3 0.1
C2 10 16V :TA-C
C1 0.1
C6 10 16V :TA-C
C5 0.1
R18 33k
R19 4700
C17 2200
R82 33k
IC13 TL062CPS (2/2)
S1 MEMORY RESET
OPERATE
RESET
R31 1k
A
B
C
D
E
F
G
H
1
2
3
4
5

AT-49B AT-49B


IC6 MC14051BF
IC7 μPC311G2 COMP
BACK UP CHARGE
✱3 IC14 8-BIT MICROCOMPUTER
Q1 2SA812
Q2 2SK94
IC13 (1/2) TL062CPS BUFFER
IC12 BX-1178A
IC8 TL7700CPS INITIAL SETTER
V REF
IC9 TC40H241F BUFFER
IC10 μPC4560G2 (2/2) BUFFER
✱3 ✱2 IC18 AM27C64-BVW400 AV3.15
EPROM
IC11 MN1237AD CARACTER GEN
IC19 μPC4560G2 (1/2) BUFFER
IC17 CXK1011P
IC4 TC4049BF (6/6)
RV1:CHR SIZE
Q3 2SC1623
Q6 2SA812 INV
Q4 2SC1623
IC4 TC4049BF (5/6)
Q7 2SA812
S2 MEMORY RESET
OPERATE RESET
S1 CHECK FP INH
TP2 SD
E1
CN1
MB
IRIS REM/LOCAL 1-38
IRIS REMOTE 1-42
R GAIN CONT OUT 1-22
B GAIN CONT OUT 1-23
R BLK CONT OUT 1-24
B BLK CONT OUT 1-26
R PED CONT OUT 1-35
MASTER PED OUT 1-37
G BLK CONT OUT 1-25
B PED CONT OUT 1-36
CHR BLK G OUT 1-46
CHR VIDEO OUT 1-45
SAMPLE(DELAY IN)IN 1-19
LENS CLOSE OUT 1-18
CHU/CCU OUT 1-44
L:CAMERA READY OUT 1-6
CAMERA SD 1-5

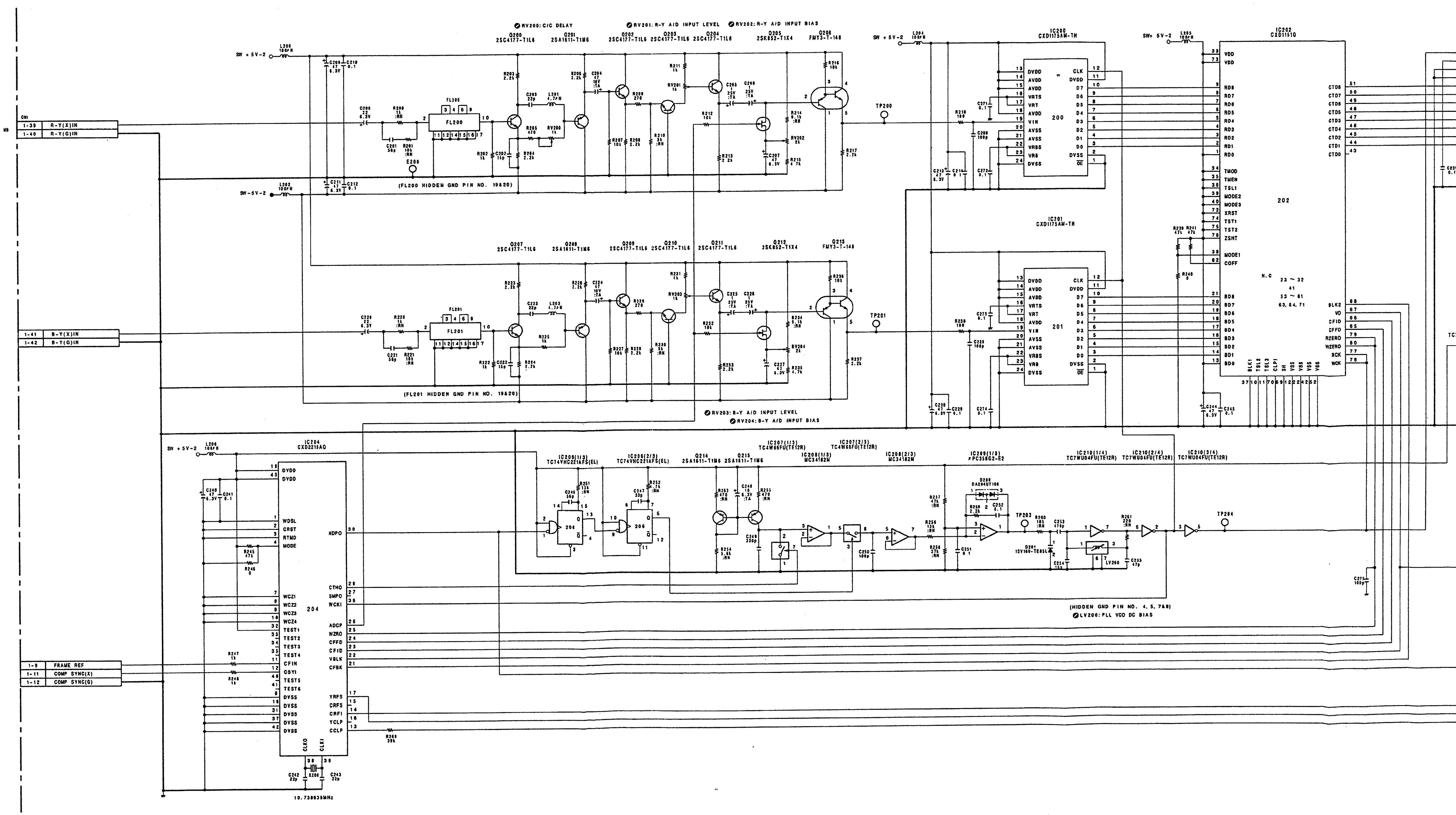
MARK	CHANGE INFORMATION	SERIAL No.
✱1	C43 100 6.3V R100 3 9 ADDED	40132-
✱2	IC18 AM27C64-BVW400AV3.03 ↓ AM27C64-BVW400AV3.15	40361-
✱3	IC14 HD63P05YO ↓ HD6305YOE95P IC18 DELETE	J ;30476- UC ;10416- EK ;40712-

AT-49B BOARD

1-625-097-15

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

VDA-11P(1/2);CTDM AND C-MODULATOR S/N;41568 and higher



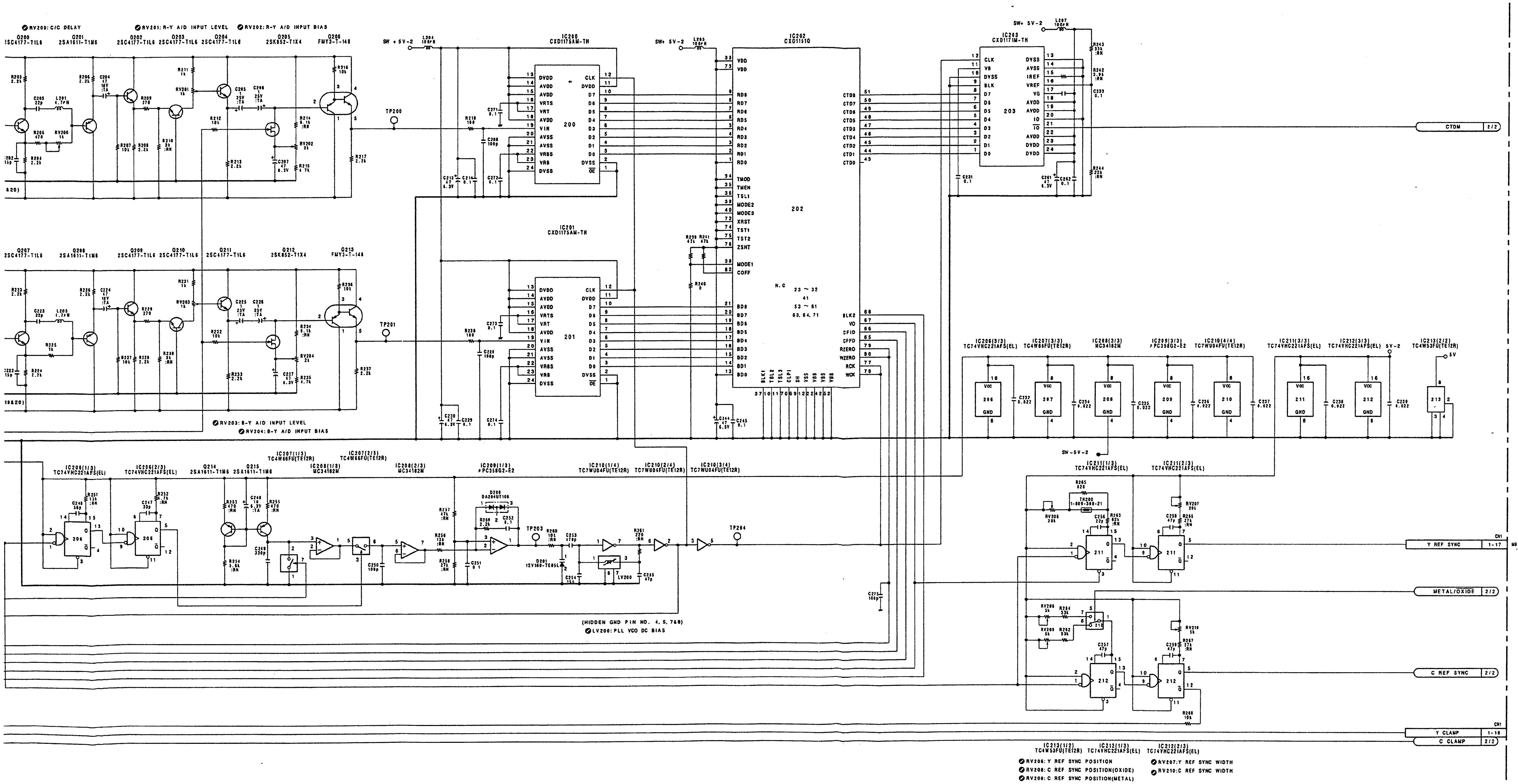
1
2
3
4
5
RV200: C/C DELAY
RV201: R-Y A/D INPUT LEVEL
RV202: R-Y A/D INPUT BIAS
RV203: B-Y A/D INPUT LEVEL
RV204: B-Y A/D INPUT BIAS
Q200 2SC4177-T1L6
Q201 2SA1611-T1M6
Q202 2SC4177-T1L6
Q203 2SC4177-T1L6
Q204 2SC4177-T1L6
Q205 2SK852-T1X4
Q206 FMY3-T-148
Q207 2SC4177-T1L6
Q208 2SA1611-T1M6
Q209 2SC4177-T1L6
Q210 2SC4177-T1L6
Q211 2SC4177-T1L6
Q212 2SK852-T1X4
Q213 FMY3-T-148
FL200
FL201
(FL200 HIDDEN GND PIN NO. 19&20)
(FL201 HIDDEN GND PIN NO. 19&20)
CN1
1-39 R-Y(X)IN
1-40 R-Y(G)IN
1-41 B-Y(X)IN
1-42 B-Y(G)IN
1-9 FRAME REF
1-11 COMP SYNC(X)
1-12 COMP SYNC(G)
SW +5V-2
SW -5V-2
TP200
TP201
TP203
TP204
E200
IC200 CXD1175AM-TH
IC201 CXD1175AM-TH
IC202 CXD11510
IC204 CXD2215AQ
IC206(1/3) TC74VHC221AFS(EL)
IC206(2/3) TC74VHC221AFS(EL)
Q214 2SA1611-T1M6
Q215 2SA1611-T1M6
IC207(1/3) TC4W66FU(TE12R)
IC207(2/3) TC4W66FU(TE12R)
IC208(1/3) MC34182M
IC208(2/3) MC34182M
IC209(1/3) μPC358G2-E2
IC210(1/4) TC7WU04FU(TE12R)
IC210(2/4) TC7WU04FU(TE12R)
IC210(3/4) TC7WU04FU(TE12R)
D200 DA204UT106
D201 1SV160-TE85L
LV200
(HIDDEN GND PIN NO. 4, 5, 7&8)
LV200: PLL VCO DC BIAS
X200
10.738635MHz
N.C 23 ~ 32 41 53 ~ 61 63, 64, 71

11-57(b)

11-58(b)

A | B | C | D | E | F | G | H

higher

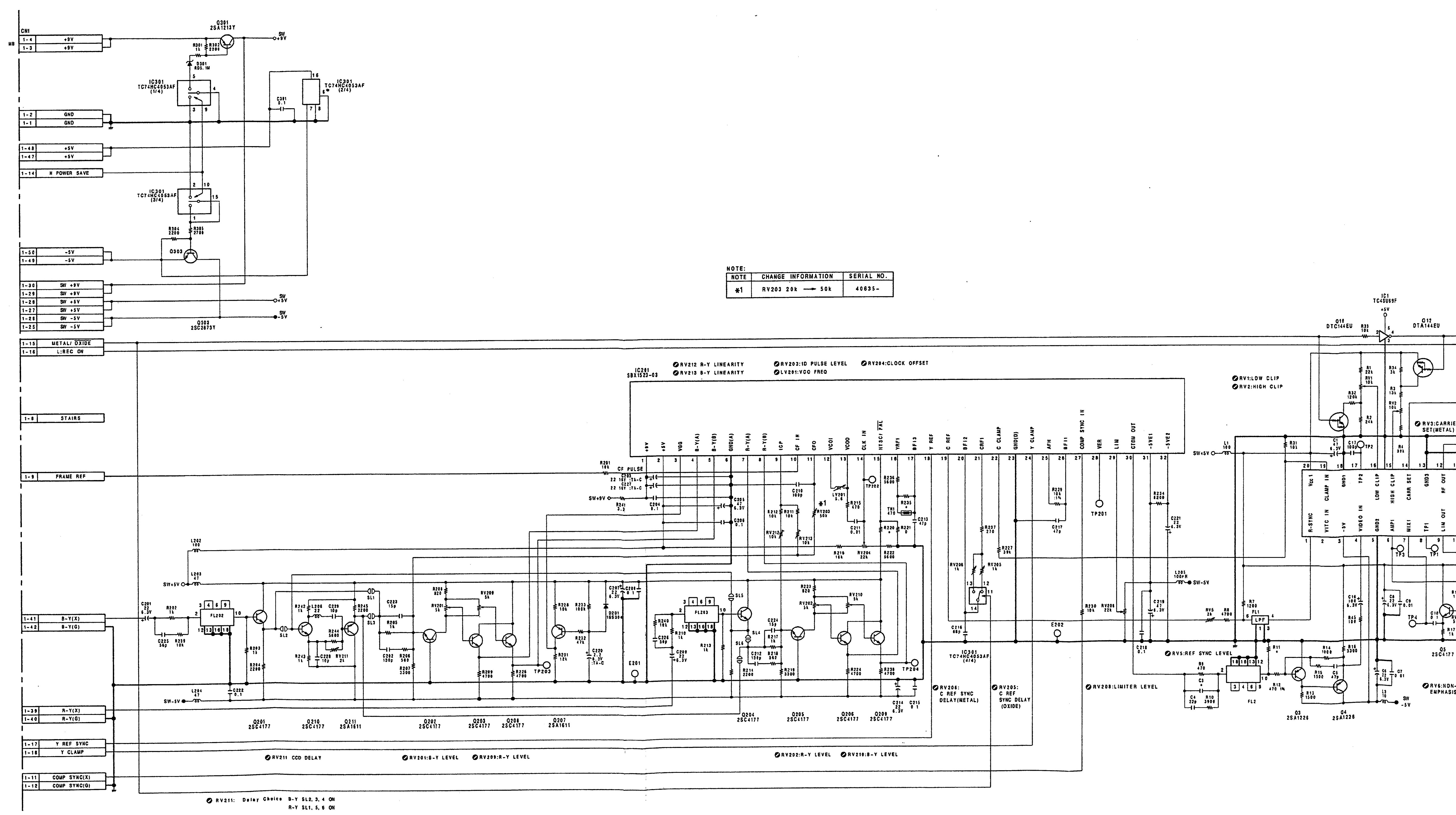

RV200: C/C DELAY
RV201: R-Y A/D INPUT LEVEL
RV202: R-Y A/D INPUT BIAS
RV203: B-Y A/D INPUT LEVEL
RV204: B-Y A/D INPUT BIAS
IC200 CXD1175AM-TH
IC201 CXD1175AM-TH
IC202 CXD11510
IC203 CXD1171M-TH
SW+5V-2
TP200
TP201
TP203
TP204
CTDM
Y REF SYNC
METAL/OXIDE
C REF SYNC
Y CLAMP
C CLAMP
CN1
(HIDDEN GND PIN NO. 4, 5, 7&8)
LV200: PLL VCO DC BIAS
RV206: Y REF SYNC POSITION
RV208: C REF SYNC POSITION(OXIDE)
RV209: C REF SYNC POSITION(METAL)
RV207: Y REF SYNC WIDTH
RV210: C REF SYNC WIDTH

VDA-11P(1/2) BOARD

1-625-541-17

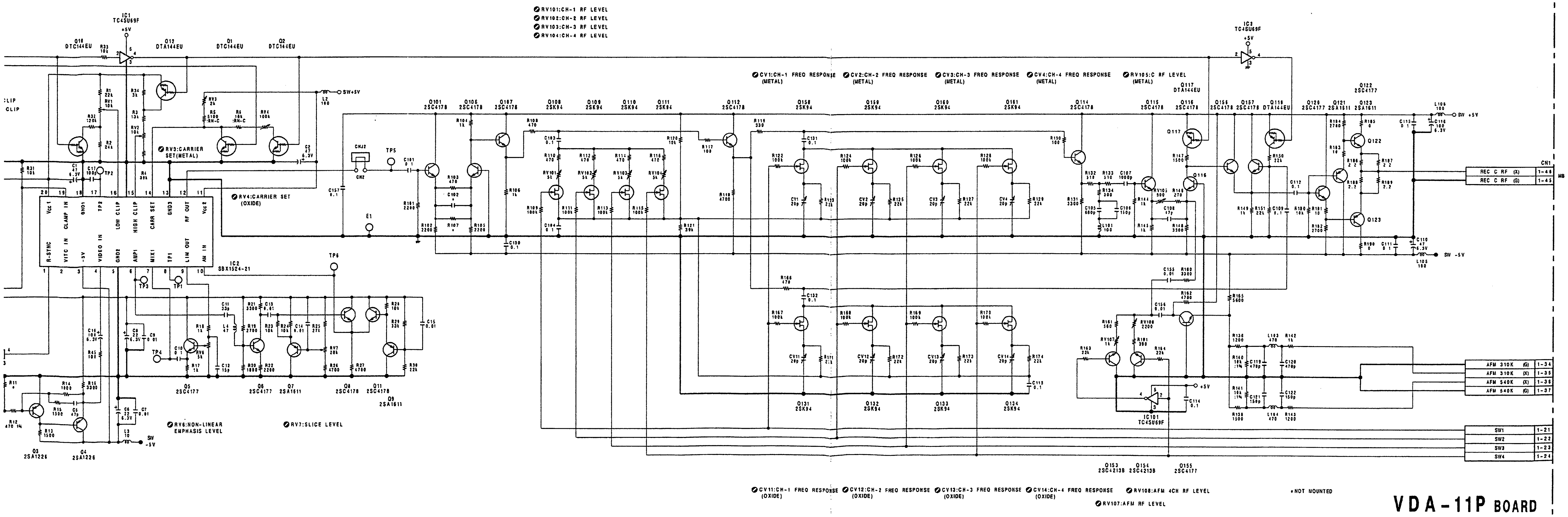
BVW-400AP (EK) ;#41568-

VDA-11P;CTDM AND C-MODULATOR S/N;40001 through 41567


CN1
MB
1-4 +9V
1-3 +9V
1-2 GND
1-1 GND
1-48 +5V
1-47 +5V
1-14 H POWER SAVE
1-50 -5V
1-49 -5V
1-30 SW +9V
1-29 SW +9V
1-28 SW +5V
1-27 SW +5V
1-26 SW -5V
1-25 SW -5V
1-15 METAL/ OXIDE
1-16 L:REC ON
1-8 STAIRS
1-9 FRAME REF
1-41 B-Y(X)
1-42 B-Y(G)
1-39 R-Y(X)
1-40 R-Y(G)
1-17 Y REF SYNC
1-18 Y CLAMP
1-11 COMP SYNC(X)
1-12 COMP SYNC(G)
Q301 2SA1213Y
Q303 2SC2873Y
IC301 TC74HC4053AF
IC201 SBX1523-03
IC1 TC4SU69F
Q16 DTC144EU
Q12 DTA144EU
Q201 2SC4177
Q210 2SC4177
Q211 2SA1611
Q202 2SC4177
Q203 2SC4177
Q208 2SC4177
Q207 2SA1611
Q204 2SC4177
Q205 2SC4177
Q206 2SC4177
Q209 2SC4177
Q3 2SA1226
Q4 2SA1226
Q5 2SC4177
FL202
FL203
TP201
TP202
TP203
TP204
E201
E202
ØRV212 R-Y LINEARITY
ØRV213 B-Y LINEARITY
ØRV203:1D PULSE LEVEL
ØLV201:VCO FREQ
ØRV204:CLOCK OFFSET
ØRV1:LOW CLIP
ØRV2:HIGH CLIP
ØRV3:CARRIER SET(METAL)
ØRV5:REF SYNC LEVEL
ØRV6:NON- EMPHASIS
ØRV206: C REF SYNC DELAY(METAL)
ØRV205: C REF SYNC DELAY (OXIDE)
ØRV208:LIMITER LEVEL
ØRV211 CCD DELAY
ØRV201:B-Y LEVEL
ØRV209:R-Y LEVEL
ØRV202:R-Y LEVEL
ØRV210:B-Y LEVEL
Ø RV211: Delay Choice B-Y SL2, 3, 4 ON
R-Y SL1, 5, 6 ON
1
2
3
4
5
A
B
C
D
E
F
G
H

NOTE:

NOTE	CHANGE INFORMATION	SERIAL NO.
*1	RV203 20k → 50k	40635-


IC1
TC4SU69F
Q10
DTC144EU
Q12
DTA144EU
D1
DTC144EU
D2
DTC144EU
SW+5V
RV3:CARRIER SET(METAL)
RV4:CARRIER SET (OXIDE)
IC2
SBX1524-21
R-SYNC
VITC IN
-5V
VIDEO IN
GND2
AMP1
MIX1
TP1
LIM OUT
AM IN
Vcc 1
CLAMP IN
GND1
TP2
LOW CLIP
HIGH CLIP
CARR SET
GND3
RF OUT
Vcc 2
TP1
TP2
TP3
TP4
TP5
TP6
E1
CNJ2
CN2
Q3
2SA1226
Q4
2SA1226
Q5
2SC4177
Q6
2SC4177
Q7
2SA1611
Q8
2SC4178
Q11
2SC4178
Q9
2SA1611
SW -5V
RV6:NON-LINEAR EMPHASIS LEVEL
RV7:SLICE LEVEL
RV101:CH-1 RF LEVEL
RV102:CH-2 RF LEVEL
RV103:CH-3 RF LEVEL
RV104:CH-4 RF LEVEL
CV1:CH-1 FREQ RESPONSE (METAL)
CV2:CH-2 FREQ RESPONSE (METAL)
CV3:CH-3 FREQ RESPONSE (METAL)
CV4:CH-4 FREQ RESPONSE (METAL)
RV105:C RF LEVEL (METAL)
Q101
2SC4178
Q105
2SC4178
Q107
2SC4178
Q108
2SK94
Q109
2SK94
Q110
2SK94
Q111
2SK94
Q112
2SC4178
Q158
2SK94
Q159
2SK94
Q160
2SK94
Q161
2SK94
Q114
2SC4178
Q115
2SC4178
Q116
2SC4178
Q117
DTA144EU
Q156
2SC4178
Q157
2SC4178
Q118
DTA144EU
Q120
2SC4177
Q121
2SA1611
Q122
2SC4177
Q123
2SA1611
IC3
TC4SU69F
SW +5V
SW -5V
CN1
MB
Q131
2SK94
Q132
2SK94
Q133
2SK94
Q134
2SK94
IC101
TC4SU69F
Q153
2SC4213B
Q154
2SC4213B
Q155
2SC4177
CV11:CH-1 FREQ RESPONSE (OXIDE)
CV12:CH-2 FREQ RESPONSE (OXIDE)
CV13:CH-3 FREQ RESPONSE (OXIDE)
CV14:CH-4 FREQ RESPONSE (OXIDE)
RV108:AFM 4CH RF LEVEL
RV107:AFM RF LEVEL
*NOT MOUNTED

REC C RF (X)	1-46
REC C RF (G)	1-45

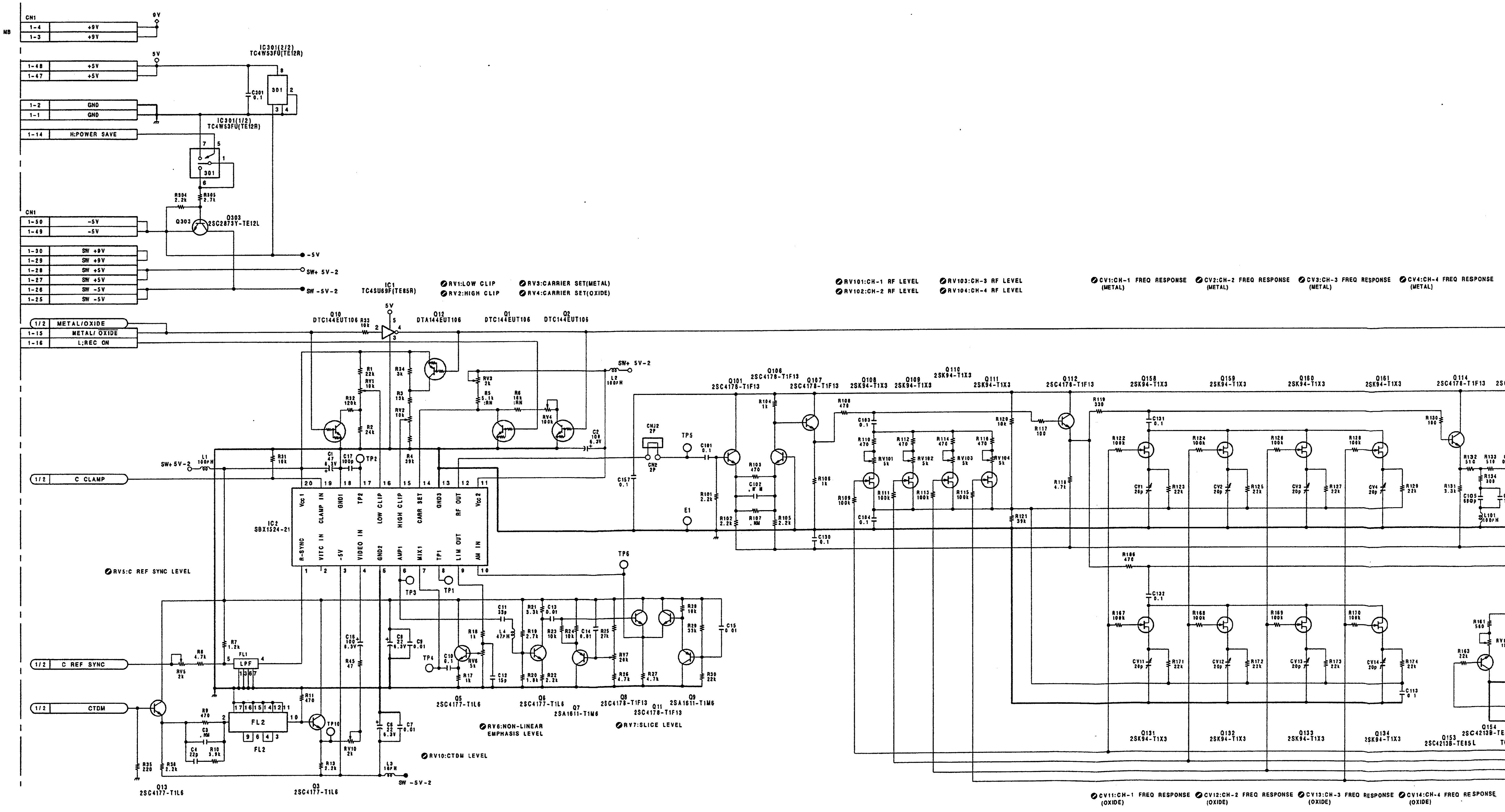
AFM 310K (G)	1-34
AFM 310K (X)	1-35
AFM 540K (X)	1-36
AFM 540K (G)	1-37

SW1	1-21
SW2	1-22
SW3	1-23
SW4	1-24

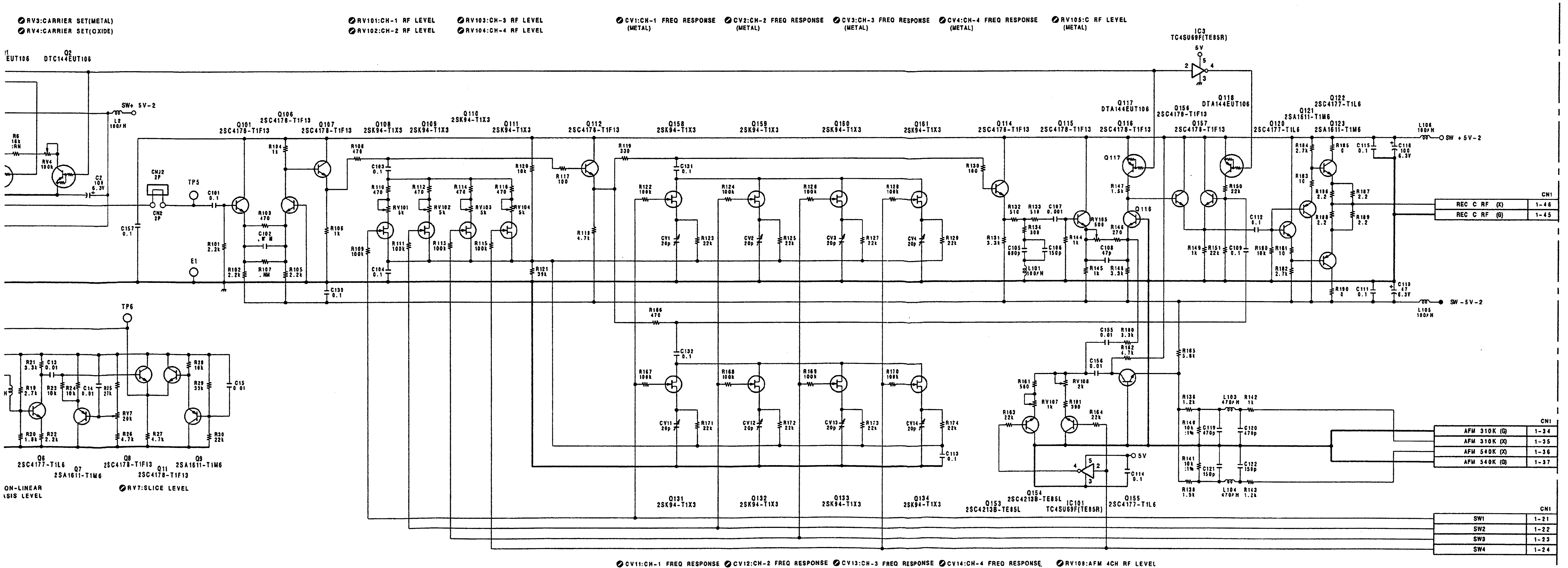
VDA-11P BOARD

1-625-541-16
BVW-400AP (EK) ;#40001-41567

VDA-11P(2/2);CTDM AND C-MODULATOR S/N;41568 and higher


CN1
MB
1-4 +9V
1-3 +9V
9V
5V
1-48 +5V
1-47 +5V
1-2 GND
1-1 GND
1-14 H:POWER SAVE
IC301(2/2) TC4W53FU(TE12R)
IC301(1/2) TC4W53FU(TE12R)
C201 0.1
R304 2.2k
R305 2.7k
Q303 2SC2873Y-TE12L
1-50 -5V
1-49 -5V
1-30 SW +9V
1-29 SW +9V
1-28 SW +5V
1-27 SW +5V
1-26 SW -5V
1-25 SW -5V
-5V
SW+ 5V-2
SW -5V-2
1/2 METAL/OXIDE
1-15 METAL/ OXIDE
1-16 L;REC ON
IC1 TC4SU69F(TE85R)
RV1:LOW CLIP
RV2:HIGH CLIP
RV3:CARRIER SET(METAL)
RV4:CARRIER SET(OXIDE)
Q10 DTC144EUT106
Q12 DTA144EUT106
Q1 DTC144EUT106
Q2 DTC144EUT106
1/2 C CLAMP
IC2 SBX1524-21
Vcc1 CLAMP IN GND1 TP2 LOW CLIP HIGH CLIP CARR SET GND3 RF OUT Vcc2
R-SYNC VITC IN -5V VIDEO IN GND2 AMP1 MIX1 TP1 LIM OUT AM IN
RV5:C REF SYNC LEVEL
1/2 C REF SYNC
1/2 CTDM
LPF
FL1
FL2
TP1 TP2 TP3 TP4 TP5 TP6 TP10
E1
CN2 2P
CNJ2 2P
Q13 2SC4177-T1L6
Q3 2SC4177-T1L6
Q5 2SC4177-T1L6
Q6 2SC4177-T1L6
Q7 2SA1611-T1M6
Q8 2SC4178-T1F13
Q11 2SC4178-T1F13
Q9 2SA1611-T1M6
RV6:NON-LINEAR EMPHASIS LEVEL
RV7:SLICE LEVEL
RV10:CTDM LEVEL
SW -5V-2
RV101:CH-1 RF LEVEL
RV102:CH-2 RF LEVEL
RV103:CH-3 RF LEVEL
RV104:CH-4 RF LEVEL
CV1:CH-1 FREQ RESPONSE (METAL)
CV2:CH-2 FREQ RESPONSE (METAL)
CV3:CH-3 FREQ RESPONSE (METAL)
CV4:CH-4 FREQ RESPONSE (METAL)
Q101 2SC4178-T1F13
Q106 2SC4178-T1F13
Q107 2SC4178-T1F13
Q108 2SK94-T1X3
Q109 2SK94-T1X3
Q110 2SK94-T1X3
Q111 2SK94-T1X3
Q112 2SC4178-T1F13
Q158 2SK94-T1X3
Q159 2SK94-T1X3
Q160 2SK94-T1X3
Q161 2SK94-T1X3
Q114 2SC4178-T1F13
Q131 2SK94-T1X3
Q132 2SK94-T1X3
Q133 2SK94-T1X3
Q134 2SK94-T1X3
Q153 2SC4213B-TE85L
Q154 2SC4213B-TE
CV11:CH-1 FREQ RESPONSE (OXIDE)
CV12:CH-2 FREQ RESPONSE (OXIDE)
CV13:CH-3 FREQ RESPONSE (OXIDE)
CV14:CH-4 FREQ RESPONSE (OXIDE)

higher

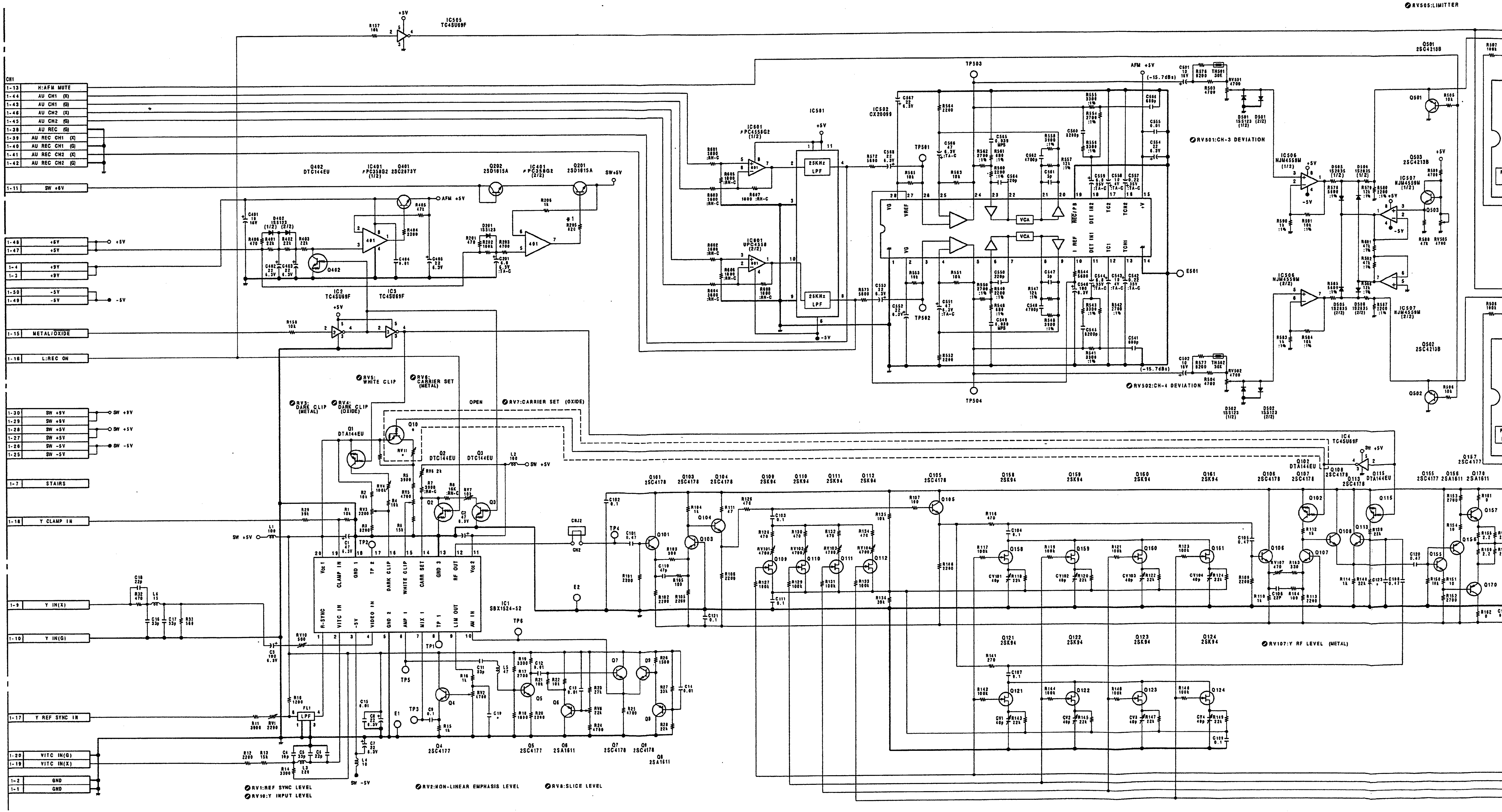

RV3:CARRIER SET(METAL)
RV4:CARRIER SET(OXIDE)
RV101:CH-1 RF LEVEL
RV102:CH-2 RF LEVEL
RV103:CH-3 RF LEVEL
RV104:CH-4 RF LEVEL
CV1:CH-1 FREQ RESPONSE (METAL)
CV2:CH-2 FREQ RESPONSE (METAL)
CV3:CH-3 FREQ RESPONSE (METAL)
CV4:CH-4 FREQ RESPONSE (METAL)
RV105:C RF LEVEL (METAL)
IC3 TC4SU69F(TE85R)
Q2 DTC144EUT106
SW+ 5V-2
Q101 2SC4178-T1F13
Q106 2SC4178-T1F13
Q107 2SC4178-T1F13
Q108 2SK94-T1X3
Q109 2SK94-T1X3
Q110 2SK94-T1X3
Q111 2SK94-T1X3
Q112 2SC4178-T1F13
Q158 2SK94-T1X3
Q159 2SK94-T1X3
Q160 2SK94-T1X3
Q161 2SK94-T1X3
Q114 2SC4178-T1F13
Q115 2SC4178-T1F13
Q116 2SC4178-T1F13
Q117 DTA144EUT106
Q118 DTA144EUT106
Q156 2SC4178-T1F13
Q157 2SC4178-T1F13
Q120 2SC4177-T1L6
Q121 2SA1611-T1M6
Q122 2SC4177-T1L6
Q123 2SA1611-T1M6
L106 100μH
SW +5V-2
SW -5V-2
L105 100μH
CN1
REC C RF (X) 1-46
REC C RF (G) 1-45
MB
TP5
TP6
E1
CN2 2P
CNJ2 2P
AFM 310K (G) 1-34
AFM 310K (X) 1-35
AFM 540K (X) 1-36
AFM 540K (G) 1-37
SW1 1-21
SW2 1-22
SW3 1-23
SW4 1-24
Q6 2SC4177-T1L6
Q7 2SA1611-T1M6
Q8 2SC4178-T1F13
Q11 2SC4178-T1F13
Q9 2SA1611-T1M6
ON-LINEAR
SIS LEVEL
RV7:SLICE LEVEL
Q131 2SK94-T1X3
Q132 2SK94-T1X3
Q133 2SK94-T1X3
Q134 2SK94-T1X3
Q153 2SC4213B-TE85L
Q154 2SC4213B-TE85L
IC101 TC4SU69F(TE85R)
Q155 2SC4177-T1L6
CV11:CH-1 FREQ RESPONSE (OXIDE)
CV12:CH-2 FREQ RESPONSE (OXIDE)
CV13:CH-3 FREQ RESPONSE (OXIDE)
CV14:CH-4 FREQ RESPONSE (OXIDE)
RV108:AFM 4CH RF LEVEL
RV107:AFM RF LEVEL

VDA-11P(2/2) BOARD

1-625-541-17

BVW-400AP (EK) ;#41568-

AFM-6P;Y-MODULATOR, AFM


CN1
MB
1-13 H:AFM MUTE
1-44 AU CH1 (X)
1-43 AU CH1 (G)
1-46 AU CH2 (X)
1-45 AU CH2 (G)
1-38 AU REC (G)
1-39 AU REC CH1 (X)
1-40 AU REC CH1 (G)
1-41 AU REC CH2 (X)
1-42 AU REC CH2 (G)
1-11 SW +6V
1-48 +5V
1-47 +5V
1-4 +9V
1-3 +9V
1-50 -5V
1-49 -5V
1-15 METAL/OXIDE
1-16 L:REC ON
1-30 SW +9V
1-29 SW +9V
1-28 SW +5V
1-27 SW +5V
1-26 SW -5V
1-25 SW -5V
1-7 STAIRS
1-18 Y CLAMP IN
1-9 Y IN(X)
1-10 Y IN(G)
1-17 Y REF SYNC IN
1-20 VITC IN(G)
1-19 VITC IN(X)
1-2 GND
1-1 GND
IC505 TC4SU69F
IC501
IC502 CX20099
IC601 μPC4558G2
IC401 μPC358G2
IC2 TC4SU69F
IC3 TC4SU69F
IC1 SBX1524-52
IC4 TC4SU69F
IC506 NJM4559M
IC507 NJM4559M
25KHz LPF
VCA
AFM +5V
TP501
TP502
TP503
TP504
E501
Q501 2SC4213B
Q502 2SC4213B
Q503 2SC4213B
Q401 2SC2873Y
Q402 DTC144EU
Q201 2SD1815A
Q202 2SD1815A
OPEN
CN2

RV505:LIMITTER

RV501:CH-3 DEVIATION

RV502:CH-4 DEVIATION

RV5: WHITE CLIP

RV6: CARRIER SET (METAL)

RV3: DARK CLIP (METAL)

RV4: DARK CLIP (OXIDE)

RV7:CARRIER SET (OXIDE)

RV107:Y RF LEVEL (METAL)

RV1:REF SYNC LEVEL
RV10:Y INPUT LEVEL

RV2:NON-LINEAR EMPHASIS LEVEL

RV8:SLICE LEVEL

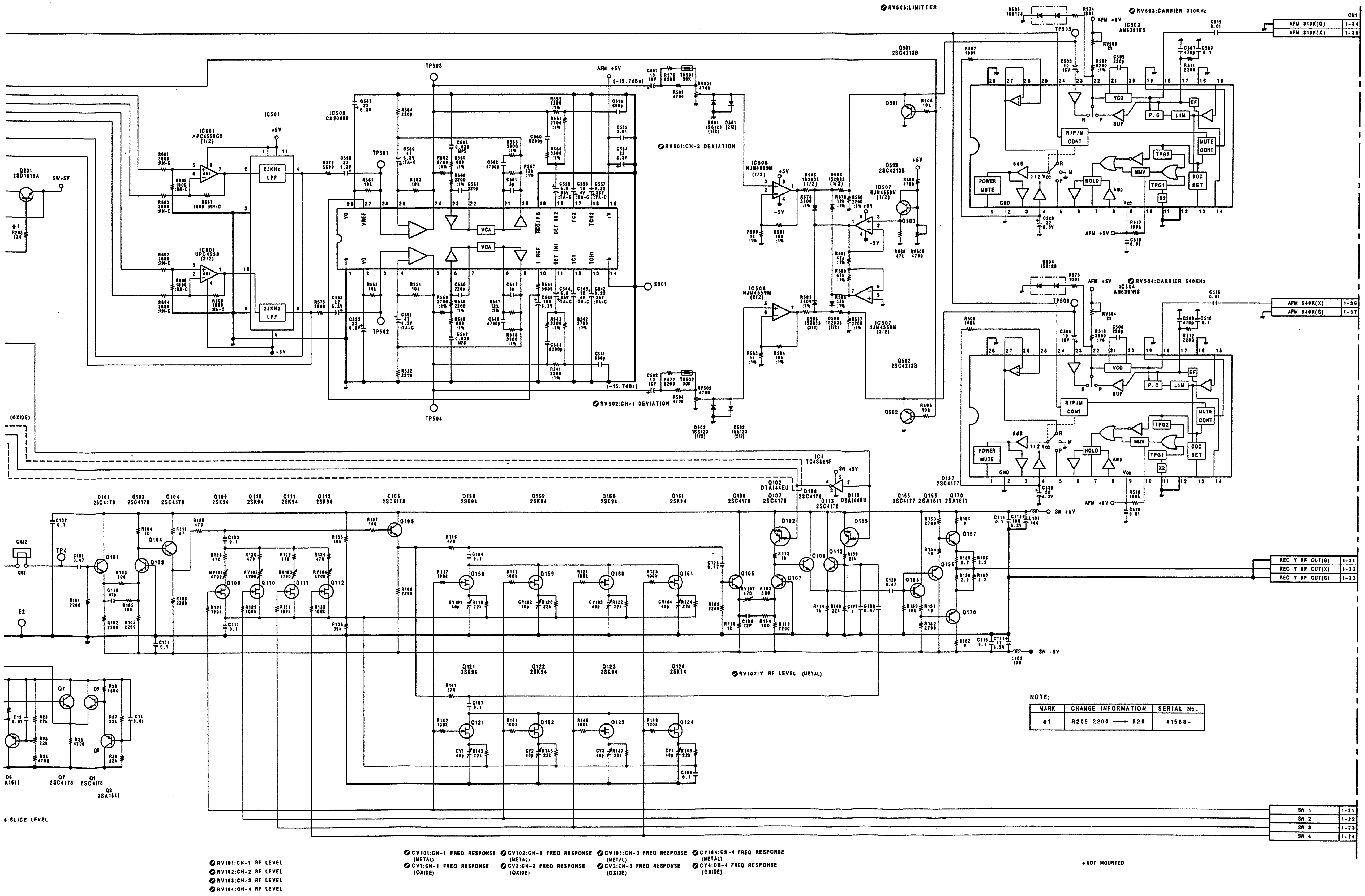
RV101:CH-1 RF LEVEL
RV102:CH-2 RF LEVEL
RV103:CH-3 RF LEVEL
RV104:CH-4 RF LEVEL

CV101:CH-1 FREQ RESPONSE (METAL)
CV1:CH-1 FREQ RESPONSE (OXIDE)

CV102:CH-2 FREQ RESPONSE (METAL)
CV2:CH-2 FREQ RESPONSE (OXIDE)

CV103:CH-3 FREQ RESPONSE (METAL)
CV3:CH-3 FREQ RESPONSE (OXIDE)

CV104:CH-4 FREQ RESPONSE (METAL)
CV4:CH-4 FREQ RESPONSE (OXIDE)


RV505:LIMITTER
RV503:CARRIER 310KHz
RV504:CARRIER 540KHz
RV501:CH-3 DEVIATION
RV502:CH-4 DEVIATION
IC501
IC502 CX20099
IC503 AN6391NS
IC504 AN6391NS
IC506 NJM4559M
IC507 NJM4559M
IC601 μPC4558G2
IC4 TC4SU69F
2SKHz LPF
VCA
VCO
BUF
P.C
LIM
EF
R/P/M CONT
MUTE CONT
POWER MUTE
TPG1
TPG2
MMV
HOLD
DOC DET
X2
6dB
1/2 Vcc
Amp
GND
Vcc
TP501
TP502
TP503
TP504
TP505
TP506
TP4
E501
E2
CN1
CN2
AFM +5V
SW +5V
SW -5V
-5V
+5V
(-15.7dBs)
(OXIDE)
AFM 310K(G)
AFM 310K(X)
AFM 540K(X)
AFM 540K(G)
REC Y RF OUT(G)
REC Y RF OUT(X)
REC Y RF OUT(G)
SW 1
SW 2
SW 3
SW 4
1-34
1-35
1-36
1-37
1-31
1-32
1-33
1-21
1-22
1-23
1-24
MB
Q201 2SD1615A
Q501 2SC4213B
Q502 2SC4213B
Q503 2SC4213B
Q101 2SC4178
Q103 2SC4178
Q104 2SC4178
Q109 2SK94
Q110 2SK94
Q111 2SK94
Q112 2SK94
Q105 2SC4178
Q158 2SK94
Q159 2SK94
Q160 2SK94
Q161 2SK94
Q106 2SC4178
Q102 DTA144EU
Q107 2SC4178
Q108 2SC4178
Q113 2SC4178
Q115 DTA144EU
Q155 2SC4177
Q156 2SA1611
Q157 2SC4177
Q170 2SA1611
Q121 2SK94
Q122 2SK94
Q123 2SK94
Q124 2SK94
Q6 A1611
Q7 2SC4178
Q8 2SC4178
Q9 2SA1611
RV107:Y RF LEVEL (METAL)
8:SLICE LEVEL
RV101:CH-1 RF LEVEL
RV102:CH-2 RF LEVEL
RV103:CH-3 RF LEVEL
RV104:CH-4 RF LEVEL
CV101:CH-1 FREQ RESPONSE (METAL)
CV1:CH-1 FREQ RESPONSE (OXIDE)
CV102:CH-2 FREQ RESPONSE (METAL)
CV2:CH-2 FREQ RESPONSE (OXIDE)
CV103:CH-3 FREQ RESPONSE (METAL)
CV3:CH-3 FREQ RESPONSE (OXIDE)
CV104:CH-4 FREQ RESPONSE (METAL)
CV4:CH-4 FREQ RESPONSE (OXIDE)
*NOT MOUNTED

NOTE;

MARK	CHANGE INFORMATION	SERIAL No.
#1	R205 2200 ⟶ 820	41568-

AFM-6P BOARD

1-625-542-17

BVW-400AP (EK) ;#40001-

VP-24P;VIDEO PB

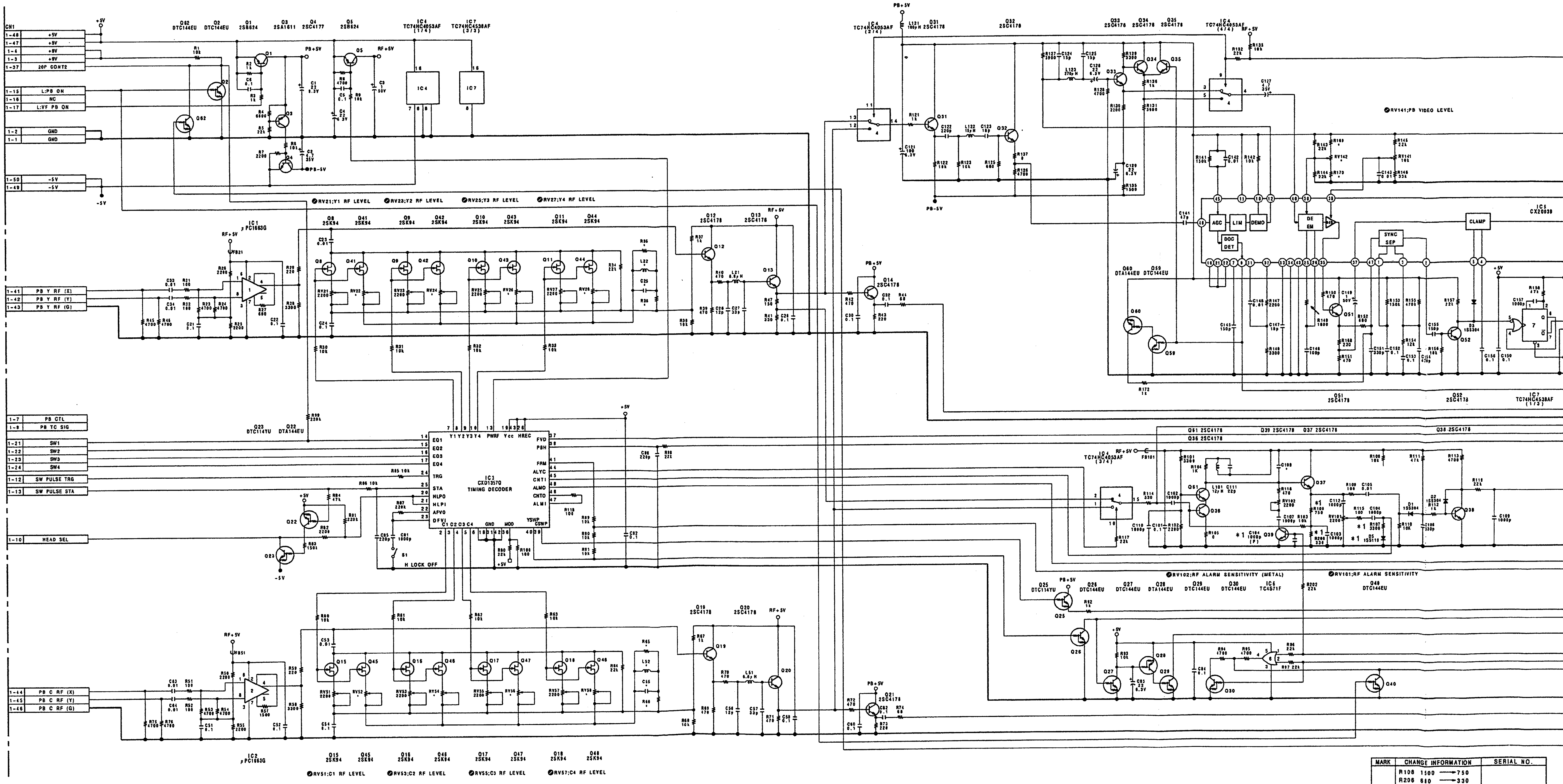
1

2

3

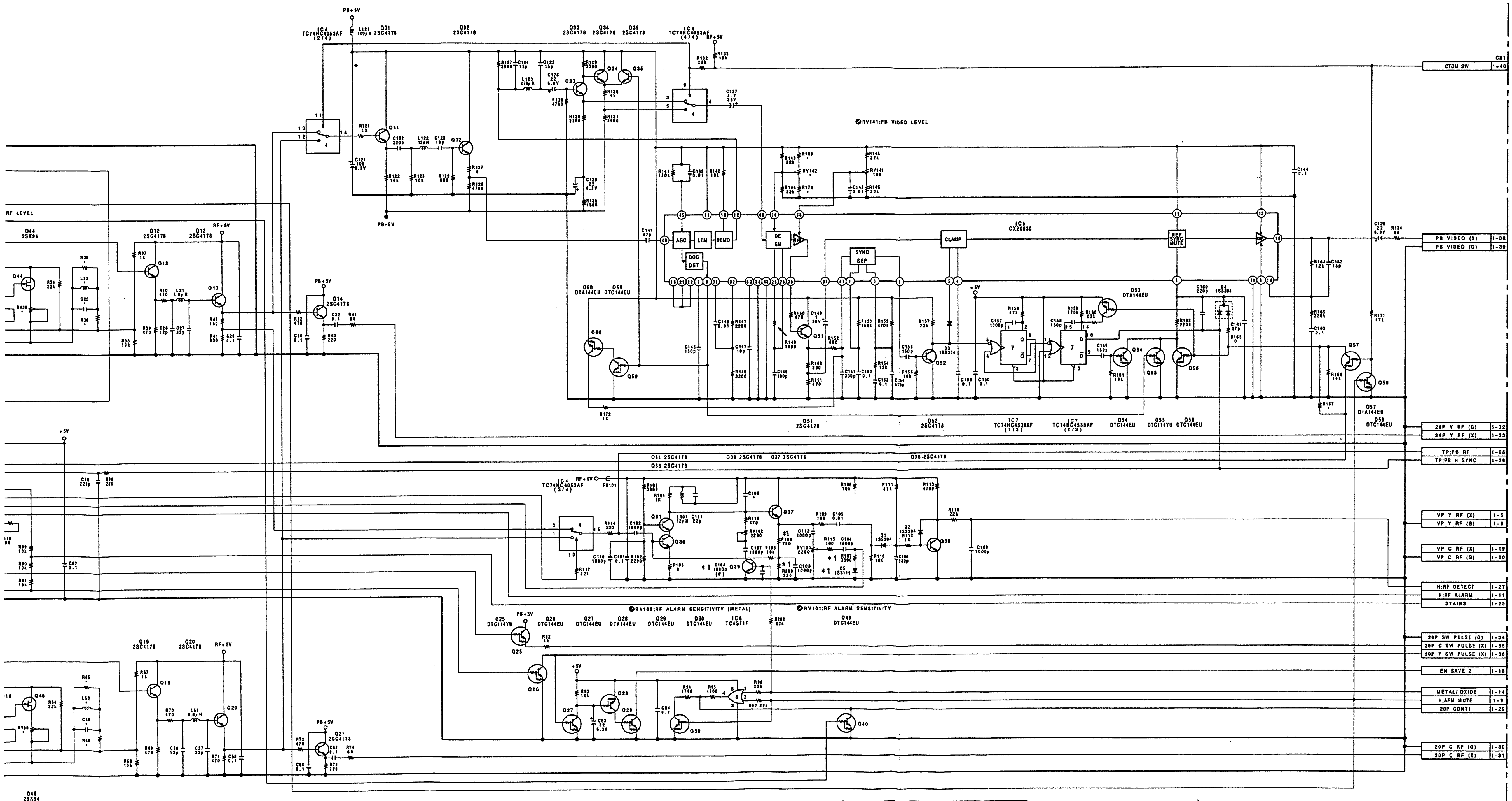
4

5


CN1
MB
1-48 +5V
1-47 +5V
1-4 +9V
1-3 +9V
1-37 20P CONT2
1-15 L:PB ON
1-16 NC
1-17 L:VF PB ON
1-2 GND
1-1 GND
1-50 -5V
1-49 -5V
1-41 PB Y RF (X)
1-42 PB Y RF (Y)
1-43 PB Y RF (G)
1-7 PB CTL
1-8 PB TC SIG
1-21 SW1
1-22 SW2
1-23 SW3
1-24 SW4
1-12 SW PULSE TRG
1-13 SW PULSE STA
1-10 HEAD SEL
1-44 PB C RF (X)
1-45 PB C RF (Y)
1-46 PB C RF (G)
Q62 DTC144EU
Q2 DTC144EU
Q1 2SB624
Q3 2SA1611
Q4 2SC4177
Q5 2SB624
IC4 TC74HC4053AF (1/4)
IC7 TC74HC4538AF (3/3)
PB+5V
RF+5V
PB-5V
IC1 μPC1663G
IC2 μPC1663G
RV21;Y1 RF LEVEL
RV23;Y2 RF LEVEL
RV25;Y3 RF LEVEL
RV27;Y4 RF LEVEL
Q8 2SK94
Q41 2SK94
Q9 2SK94
Q42 2SK94
Q10 2SK94
Q43 2SK94
Q11 2SK94
Q44 2SK94
Q12 2SC4178
Q13 2SC4178
Q14 2SC4178
Q23 DTC114YU
Q22 DTA144EU
IC3 CXD1357Q TIMING DECODER
EQ1
EQ2
EQ3
EQ4
TRG
STA
HLPO
HLPI
AFVO
DFVI
Y1 Y2 Y3 Y4
PWRF
Vcc
HREC
FVD
PBH
FRM
ALYC
CNT1
ALMO
CNTO
ALMI
YSWP
CSWP
C1 C2 C3 C4
GND
MOD
S1
H LOCK OFF
Q15 2SK94
Q45 2SK94
Q16 2SK94
Q46 2SK94
Q17 2SK94
Q47 2SK94
Q18 2SK94
Q48 2SK94
Q19 2SC4178
Q20 2SC4178
Q21 2SC4178
RV51;C1 RF LEVEL
RV53;C2 RF LEVEL
RV55;C3 RF LEVEL
RV57;C4 RF LEVEL
IC4 TC74HC4053AF (2/4)
Q31 2SC4178
Q32 2SC4178
Q33 2SC4178
Q34 2SC4178
Q35 2SC4178
IC4 TC74HC4053AF (4/4)
RV141;PB VIDEO LEVEL
AGC
LIM
DEMO
DOC DET
DE EM
SYNC SEP
CLAMP
IC5 CX20039
Q60 DTA144EU
Q59 DTC144EU
Q51 2SC4178
Q52 2SC4178
IC7 TC74HC4538AF (1/3)
Q61 2SC4178
Q36 2SC4178
Q39 2SC4178
Q37 2SC4178
Q38 2SC4178
IC4 TC74HC4053AF (3/4)
RV102;RF ALARM SENSITIVITY (METAL)
RV101;RF ALARM SENSITIVITY
Q25 DTC114YU
Q26 DTC144EU
Q27 DTC144EU
Q28 DTA144EU
Q29 DTC144EU
Q30 DTC144EU
IC6 TC4S71F
Q40 DTC144EU
*1

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R108 1500 ——→750 R206 680 ——→330 R107 4700 ——→3300 D5 1SS119 } ADDED C164 1000p(P) } ADDED	40361-

A | B | C | D | E | F | G | H


CN1
M8
CTDM SW 1-40
PB VIDEO (X) 1-38
PB VIDEO (G) 1-39
20P Y RF (G) 1-32
20P Y RF (X) 1-33
TP;PB RF 1-26
TP;PB H SYNC 1-28
VP Y RF (X) 1-5
VP Y RF (G) 1-6
VP C RF (X) 1-19
VP C RF (G) 1-20
H;RF DETECT 1-27
H;RF ALARM 1-11
STAIRS 1-25
20P SW PULSE (G) 1-34
20P C SW PULSE (X) 1-35
20P Y SW PULSE (X) 1-36
EN SAVE 2 1-18
METAL/ OXIDE 1-14
H;AFM MUTE 1-9
20P CONT1 1-29
20P C RF (G) 1-30
20P C RF (X) 1-31
IC5 CX20038
AGC
LIM
DEMO
DOC DET
DE EM
CLAMP
SYNC SEP
REF SYNC MUTE
RV141;PB VIDEO LEVEL
RV102;RF ALARM SENSITIVITY (METAL)
RV101;RF ALARM SENSITIVITY
RF LEVEL
:C4 RF LEVEL

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R108 1500 ⟶ 750 R206 680 ⟶ 330 R107 4700 ⟶ 3300 D5 1SS119 } ADDED C164 1000p(P) } ADDED	40361-

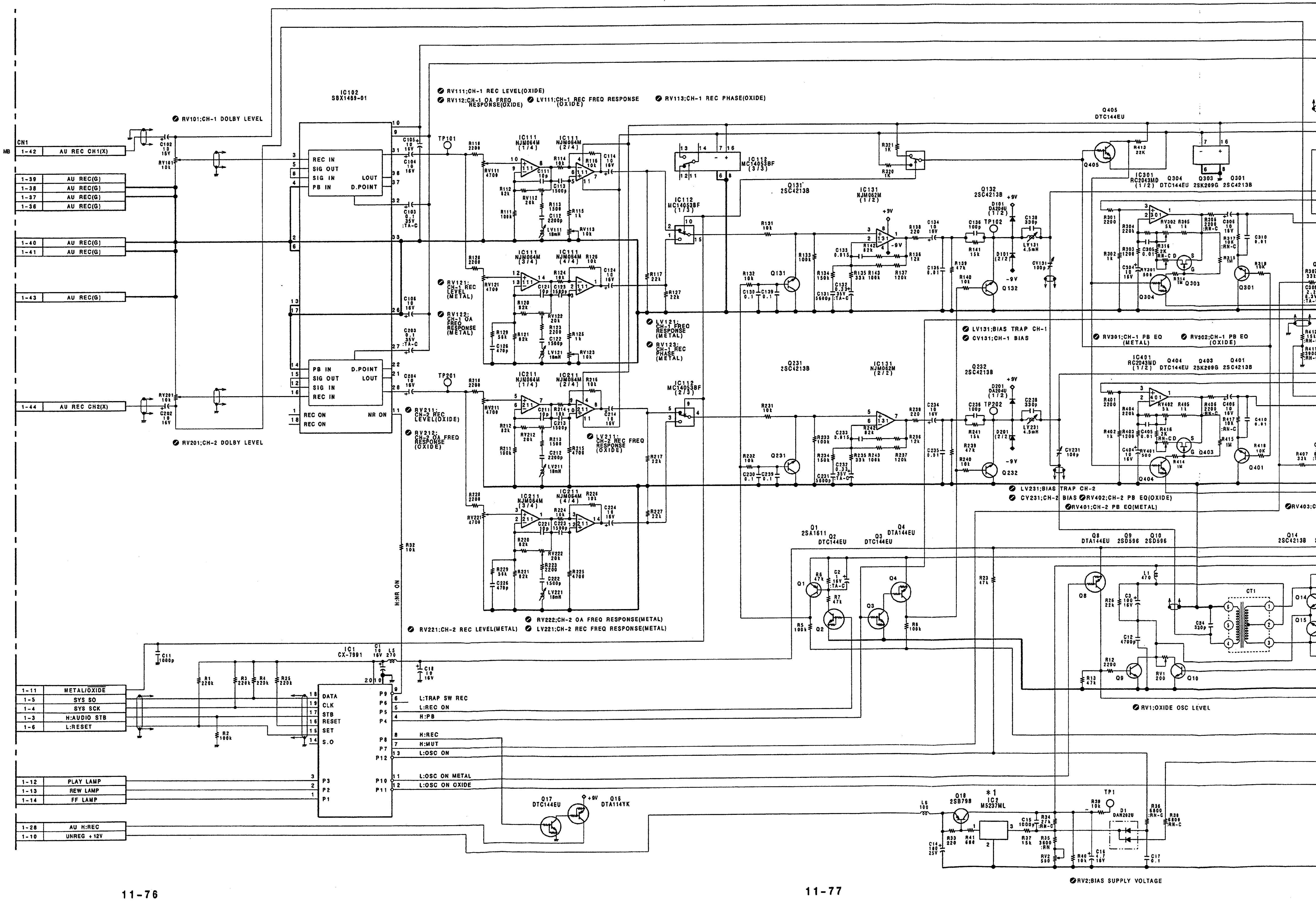
VP-24P BOARD

1-625-543-14

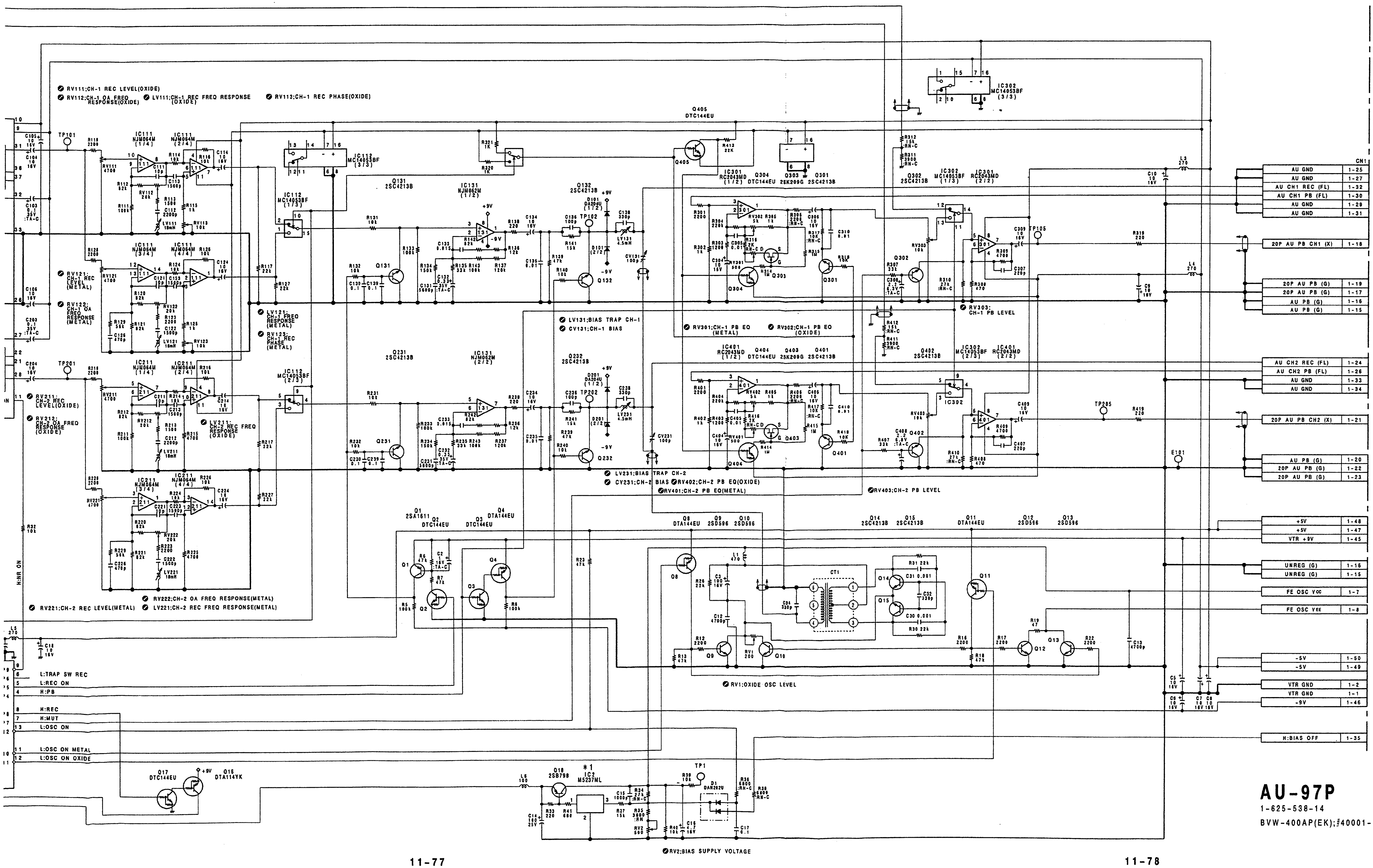
BVW-400AP(EK) ;#40001-

* NOT MOUNTED

AU-97P;AUDIO REC/PB,ERASE OSC


CN1
MB
1-42 AU REC CH1(X)
1-39 AU REC(G)
1-38 AU REC(G)
1-37 AU REC(G)
1-36 AU REC(G)
1-40 AU REC(G)
1-41 AU REC(G)
1-43 AU REC(G)
1-44 AU REC CH2(X)
1-11 METAL/OXIDE
1-5 SYS SO
1-4 SYS SCK
1-3 H:AUDIO STB
1-6 L:RESET
1-12 PLAY LAMP
1-13 REW LAMP
1-14 FF LAMP
1-28 AU H:REC
1-10 UNREG +12V
IC102 SBX1489-01
REC IN
SIG OUT
SIG IN
PB IN
LOUT
D.POINT
REC ON
NR ON
RV101;CH-1 DOLBY LEVEL
RV201;CH-2 DOLBY LEVEL
RV111;CH-1 REC LEVEL(OXIDE)
RV112;CH-1 OA FREQ RESPONSE(OXIDE)
LV111;CH-1 REC FREQ RESPONSE (OXIDE)
RV113;CH-1 REC PHASE(OXIDE)
RV121; CH-1 REC LEVEL (METAL)
RV122; CH-1 OA FREQ RESPONSE (METAL)
LV121; CH-1 FREQ RESPONSE (METAL)
RV123; CH-1 REC PHASE (METAL)
RV211; CH-2 REC LEVEL(OXIDE)
RV212; CH-2 OA FREQ RESPONSE (OXIDE)
LV211; CH-2 REC FREQ RESPONSE (OXIDE)
RV222;CH-2 OA FREQ RESPONSE(METAL)
RV221;CH-2 REC LEVEL(METAL)
LV221;CH-2 REC FREQ RESPONSE(METAL)
IC111 NJM064M
IC211 NJM064M
IC112 MC14053BF
IC131 NJM062M
Q131 2SC4213B
Q231 2SC4213B
Q132 2SC4213B
Q232 2SC4213B
TP101
TP201
TP102
TP202
LV131;BIAS TRAP CH-1
CV131;CH-1 BIAS
LV231;BIAS TRAP CH-2
CV231;CH-2 BIAS
Q405 DTC144EU
IC301 RC2043MD (1/2)
Q304 DTC144EU
Q303 2SK209G
Q301 2SC4213B
IC401 RC2043MD (1/2)
Q404 DTC144EU
Q403 2SK209G
Q401 2SC4213B
RV301;CH-1 PB EQ (METAL)
RV302;CH-1 PB EQ (OXIDE)
RV402;CH-2 PB EQ(OXIDE)
RV401;CH-2 PB EQ(METAL)
RV403
IC1 CX-7991
DATA
CLK
STB
RESET
SET
S.O
L:TRAP SW REC
L:REC ON
H:PB
H:REC
H:MUT
L:OSC ON
L:OSC ON METAL
L:OSC ON OXIDE
H:NR ON
Q17 DTC144EU
Q15 DTA114YK
Q1 2SA1611
Q2 DTC144EU
Q3 DTC144EU
Q4 DTA144EU
Q8 DTA144EU
Q9 2SD596
Q10 2SD596
Q14 2SC4213B
CT1
RV1;OXIDE OSC LEVEL
Q18 2SB798
*1 IC2 M5237ML
TP1
D1 DAN202U
RV2;BIAS SUPPLY VOLTAGE

MARK	CHANGE INFORMATION	SERIAL NO.
*1	IC2 M5236ML ↓ M5237ML	40411-



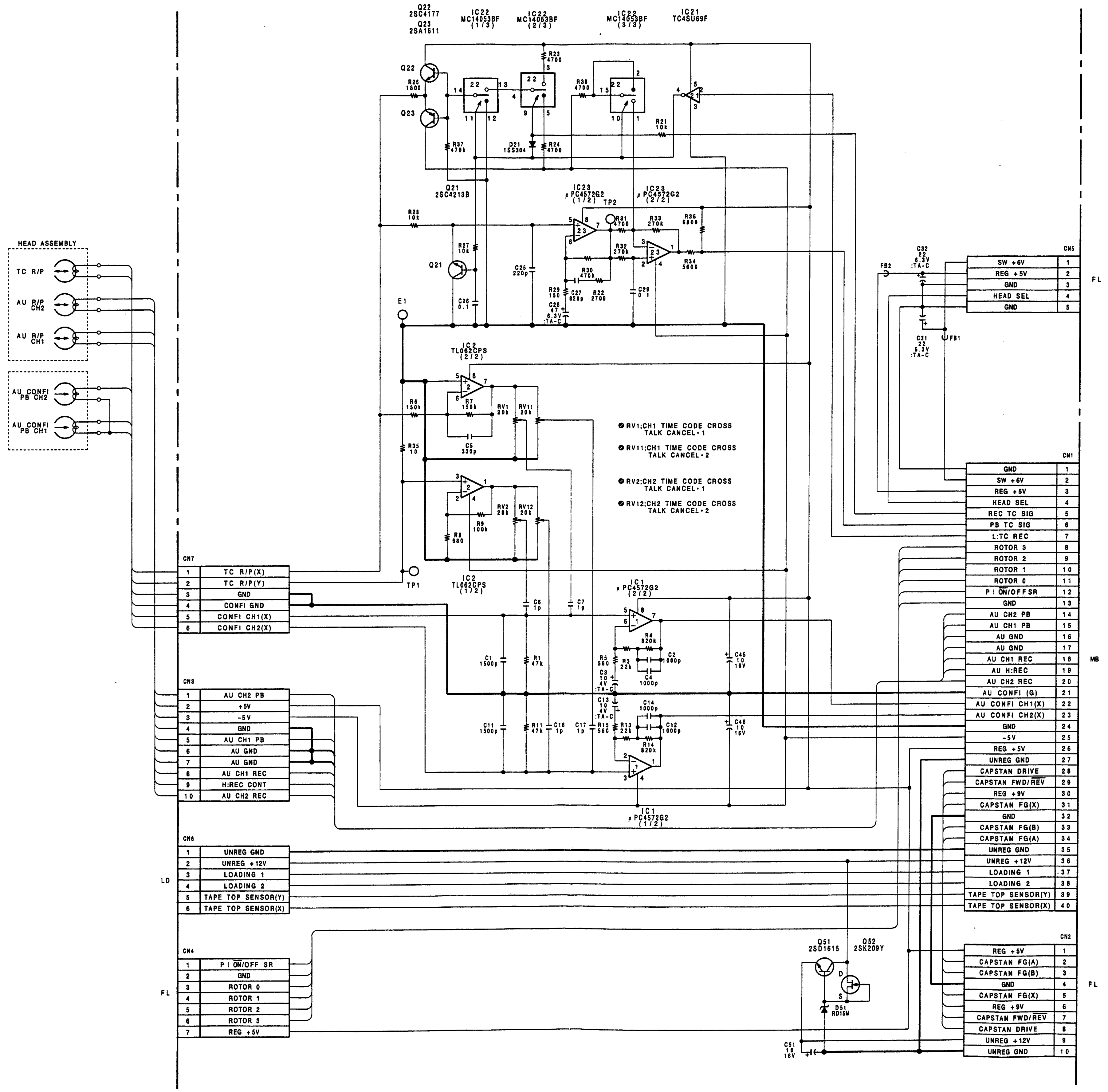
RV111;CH-1 REC LEVEL(OXIDE)
RV112;CH-1 OA FREQ RESPONSE(OXIDE)
LV111;CH-1 REC FREQ RESPONSE (OXIDE)
RV113;CH-1 REC PHASE(OXIDE)
RV121;CH-1 REC LEVEL (METAL)
RV122;CH-1 OA FREQ RESPONSE (METAL)
LV121;CH-1 FREQ RESPONSE (METAL)
RV123;CH-1 REC PHASE (METAL)
RV211;CH-2 REC LEVEL(OXIDE)
RV212;CH-2 OA FREQ RESPONSE (OXIDE)
LV211;CH-2 REC FREQ RESPONSE (OXIDE)
RV221;CH-2 REC LEVEL(METAL)
RV222;CH-2 OA FREQ RESPONSE(METAL)
LV221;CH-2 REC FREQ RESPONSE(METAL)
LV131;BIAS TRAP CH-1
CV131;CH-1 BIAS
LV231;BIAS TRAP CH-2
CY231;CH-2 BIAS
RV301;CH-1 PB EQ (METAL)
RV302;CH-1 PB EQ (OXIDE)
RV303;CH-1 PB LEVEL
RV401;CH-2 PB EQ(METAL)
RV402;CH-2 PB EQ(OXIDE)
RV403;CH-2 PB LEVEL
RV1;OXIDE OSC LEVEL
RV2;BIAS SUPPLY VOLTAGE
IC111 NJM064M
IC211 NJM064M
IC112 MC14053BF
IC131 NJM062M
IC301 RC2043MD
IC302 MC14053BF
IC401 RC2043MD
IC2 M5237ML
Q405 DTC144EU
Q131 2SC4213B
Q132 2SC4213B
Q231 2SC4213B
Q232 2SC4213B
Q301 2SC4213B
Q302 2SC4213B
Q303 2SK209G
Q304 DTC144EU
Q401 2SC4213B
Q402 2SC4213B
Q403 2SK209G
Q404 DTC144EU
D101 DA204U
D201 DA204U
Q1 2SA1611
Q2 DTC144EU
Q3 DTC144EU
Q4 DTA144EU
Q8 DTA144EU
Q9 2SD596
Q10 2SD596
Q11 DTA144EU
Q12 2SD596
Q13 2SD596
Q14 2SC4213B
Q15 2SC4213B
Q16 DTA114YK
Q17 DTC144EU
Q18 2SB798
D1 DAN202U
CT1
TP101
TP201
TP102
TP202
TP105
TP205
TP1
E101
L:TRAP SW REC
L:REC ON
H:PB
H:REC
H:MUT
L:OSC ON
L:OSC ON METAL
L:OSC ON OXIDE
H:NR ON
CN1
MB
AU GND 1-25
AU GND 1-27
AU CH1 REC (FL) 1-32
AU CH1 PB (FL) 1-30
AU GND 1-29
AU GND 1-31
20P AU PB CH1 (X) 1-18
20P AU PB (G) 1-19
20P AU PB (G) 1-17
AU PB (G) 1-16
AU PB (G) 1-15
AU CH2 REC (FL) 1-24
AU CH2 PB (FL) 1-26
AU GND 1-33
AU GND 1-34
20P AU PB CH2 (X) 1-21
AU PB (G) 1-20
20P AU PB (G) 1-22
20P AU PB (G) 1-23
+5V 1-48
+5V 1-47
VTR +9V 1-45
UNREG (G) 1-16
UNREG (G) 1-15
FE OSC Vcc 1-7
FE OSC VEE 1-8
-5V 1-50
-5V 1-49
VTR GND 1-2
VTR GND 1-1
-9V 1-46
H:BIAS OFF 1-35
*1

AU-97P

1-625-538-14

BVW-400AP(EK);#40001-

TB-5;TERMINAL BOARD,AUDIO CONFI

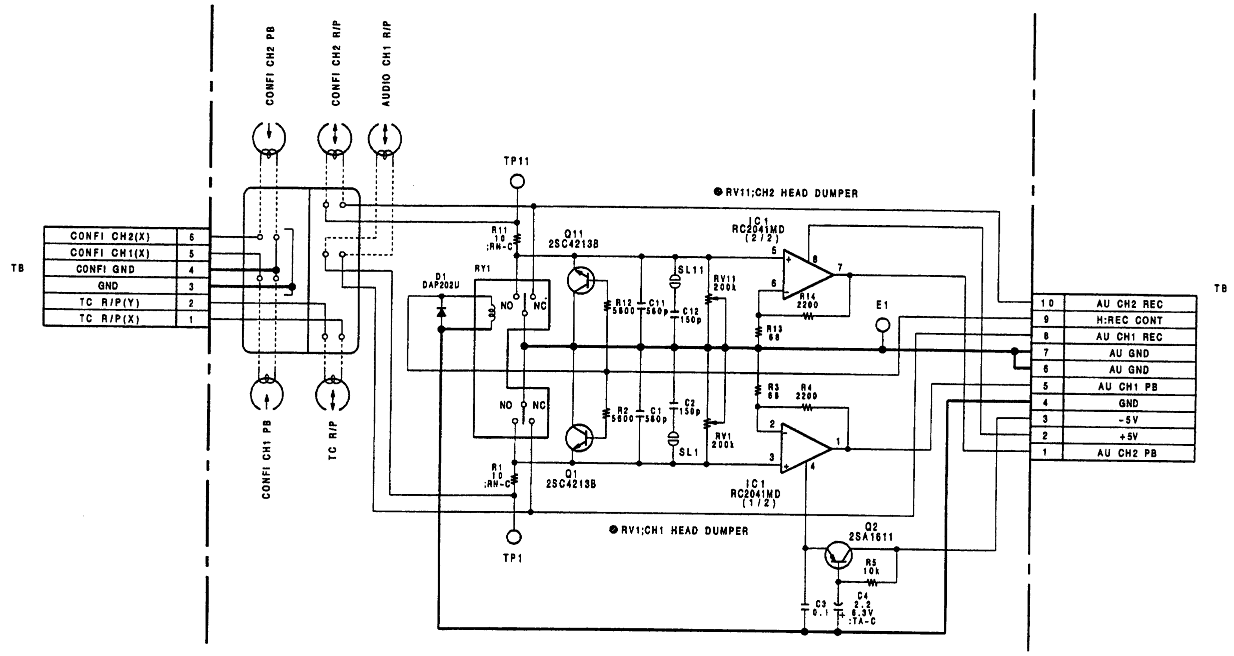

HEAD ASSEMBLY
TC R/P
AU R/P CH2
AU R/P CH1
AU CONFI PB CH2
AU CONFI PB CH1
Q22 2SC4177
Q23 2SA1611
IC22 MC14053BF (1/3)
IC22 MC14053BF (2/3)
IC22 MC14053BF (3/3)
IC21 TC4SU69F
Q21 2SC4213B
D21 1SS304
IC23 μPC4572G2 (1/2)
IC23 μPC4572G2 (2/2)
TP2
E1
TP1
IC2 TL062CPS (2/2)
IC2 TL062CPS (1/2)
IC1 μPC4572G2 (2/2)
IC1 μPC4572G2 (1/2)
RV1:CH1 TIME CODE CROSS TALK CANCEL·1
RV11:CH1 TIME CODE CROSS TALK CANCEL·2
RV2:CH2 TIME CODE CROSS TALK CANCEL·1
RV12:CH2 TIME CODE CROSS TALK CANCEL·2
CN7
1 TC R/P(X)
2 TC R/P(Y)
3 GND
4 CONFI GND
5 CONFI CH1(X)
6 CONFI CH2(X)
CN3
1 AU CH2 PB
2 +5V
3 -5V
4 GND
5 AU CH1 PB
6 AU GND
7 AU GND
8 AU CH1 REC
9 H:REC CONT
10 AU CH2 REC
CN6
LD
1 UNREG GND
2 UNREG +12V
3 LOADING 1
4 LOADING 2
5 TAPE TOP SENSOR(Y)
6 TAPE TOP SENSOR(X)
CN4
FL
1 P I ON/OFF SR
2 GND
3 ROTOR 0
4 ROTOR 1
5 ROTOR 2
6 ROTOR 3
7 REG +5V
CN5
FL
1 SW +6V
2 REG +5V
3 GND
4 HEAD SEL
5 GND
FB2
FB1
C32 22 6.3V :TA-C
C31 22 6.3V :TA-C
CN1
MB
1 GND
2 SW +6V
3 REG +5V
4 HEAD SEL
5 REC TC SIG
6 PB TC SIG
7 L:TC REC
8 ROTOR 3
9 ROTOR 2
10 ROTOR 1
11 ROTOR 0
12 P I ON/OFF SR
13 GND
14 AU CH2 PB
15 AU CH1 PB
16 AU GND
17 AU GND
18 AU CH1 REC
19 AU H:REC
20 AU CH2 REC
21 AU CONFI (G)
22 AU CONFI CH1(X)
23 AU CONFI CH2(X)
24 GND
25 -5V
26 REG +5V
27 UNREG GND
28 CAPSTAN DRIVE
29 CAPSTAN FWD/REV
30 REG +9V
31 CAPSTAN FG(X)
32 GND
33 CAPSTAN FG(B)
34 CAPSTAN FG(A)
35 UNREG GND
36 UNREG +12V
37 LOADING 1
38 LOADING 2
39 TAPE TOP SENSOR(Y)
40 TAPE TOP SENSOR(X)
CN2
FL
1 REG +5V
2 CAPSTAN FG(A)
3 CAPSTAN FG(B)
4 GND
5 CAPSTAN FG(X)
6 REG +9V
7 CAPSTAN FWD/REV
8 CAPSTAN DRIVE
9 UNREG +12V
10 UNREG GND
Q51 2SD1615
Q52 2SK209Y
D51 RD15M
C51 10 16V

TB-5 BOARD

1-625-552-14

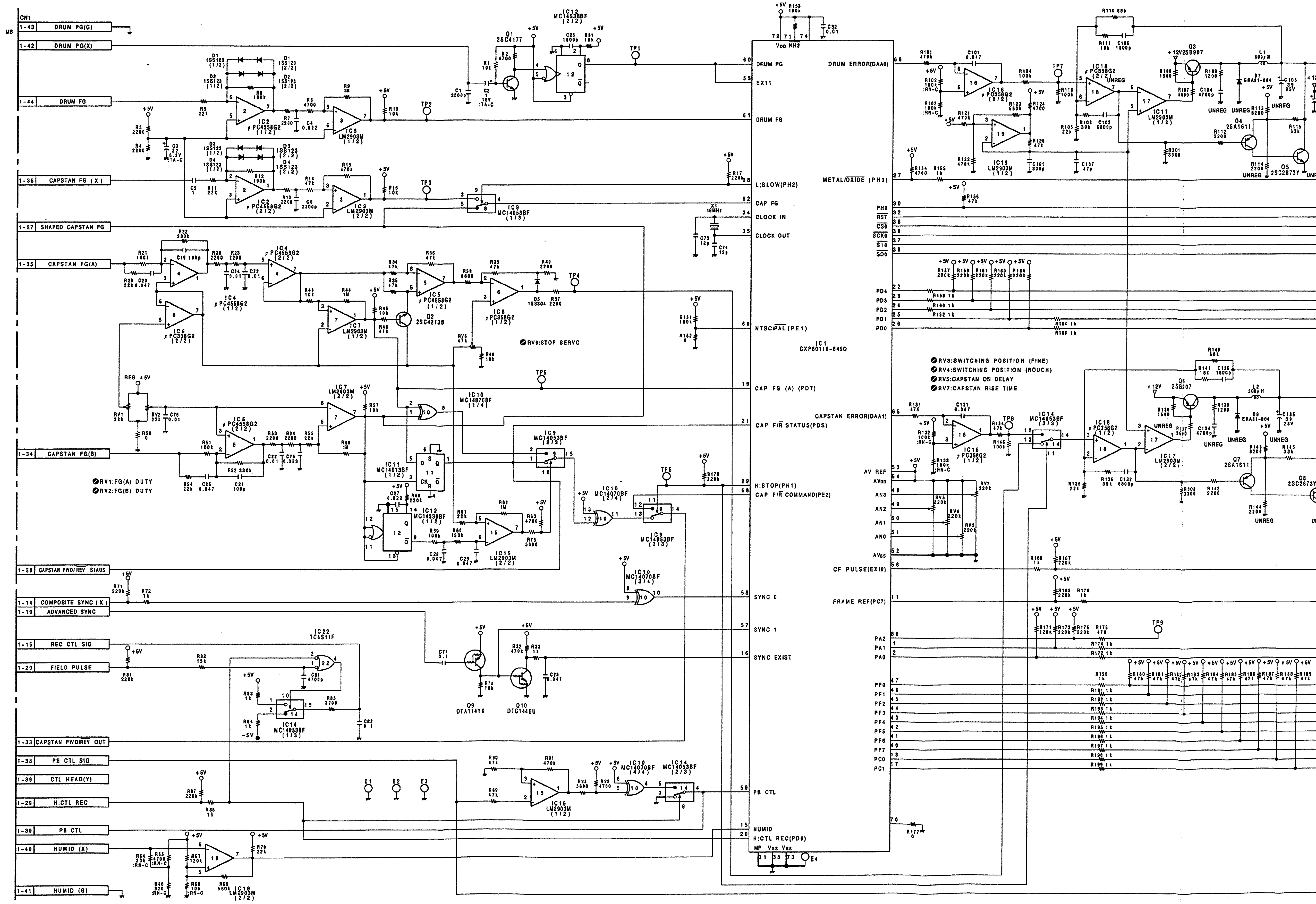
BVW-400A (J) ;#30001-
BVW-400A (UC);#10001-
BVW-400AP (EK);#40001-

FL-55P;AUDIO HEAD AMP,RELAY BOARD


CONFI CH2 PB
CONFI CH2 R/P
AUDIO CH1 R/P
CONFI CH1 PB
TC R/P
TB
CONFI CH2(X) 6
CONFI CH1(X) 5
CONFI GND 4
GND 3
TC R/P(Y) 2
TC R/P(X) 1
TP11
TP1
R11 10 :RN-C
R1 10 :RN-C
D1 DAP202U
RY1
NO
NC
Q11 2SC4213B
Q1 2SC4213B
R12 5600
C11 560p
C12 150p
SL11
RV11 200k
R2 5600
C1 560p
C2 150p
SL1
RV1 200k
● RV11;CH2 HEAD DUMPER
● RV1;CH1 HEAD DUMPER
IC1 RC2041MD (2/2)
IC1 RC2041MD (1/2)
R14 2200
R13 68
R3 68
R4 2200
E1
Q2 2SA1611
R5 10k
C3 0.1
C4 2.2 6.3V :TA-C
TB
10 AU CH2 REC
9 H:REC CONT
8 AU CH1 REC
7 AU GND
6 AU GND
5 AU CH1 PB
4 GND
3 -5V
2 +5V
1 AU CH2 PB

FL-55/P BOARD
1-625-893-12
BVW-400AP(EK);#40001-

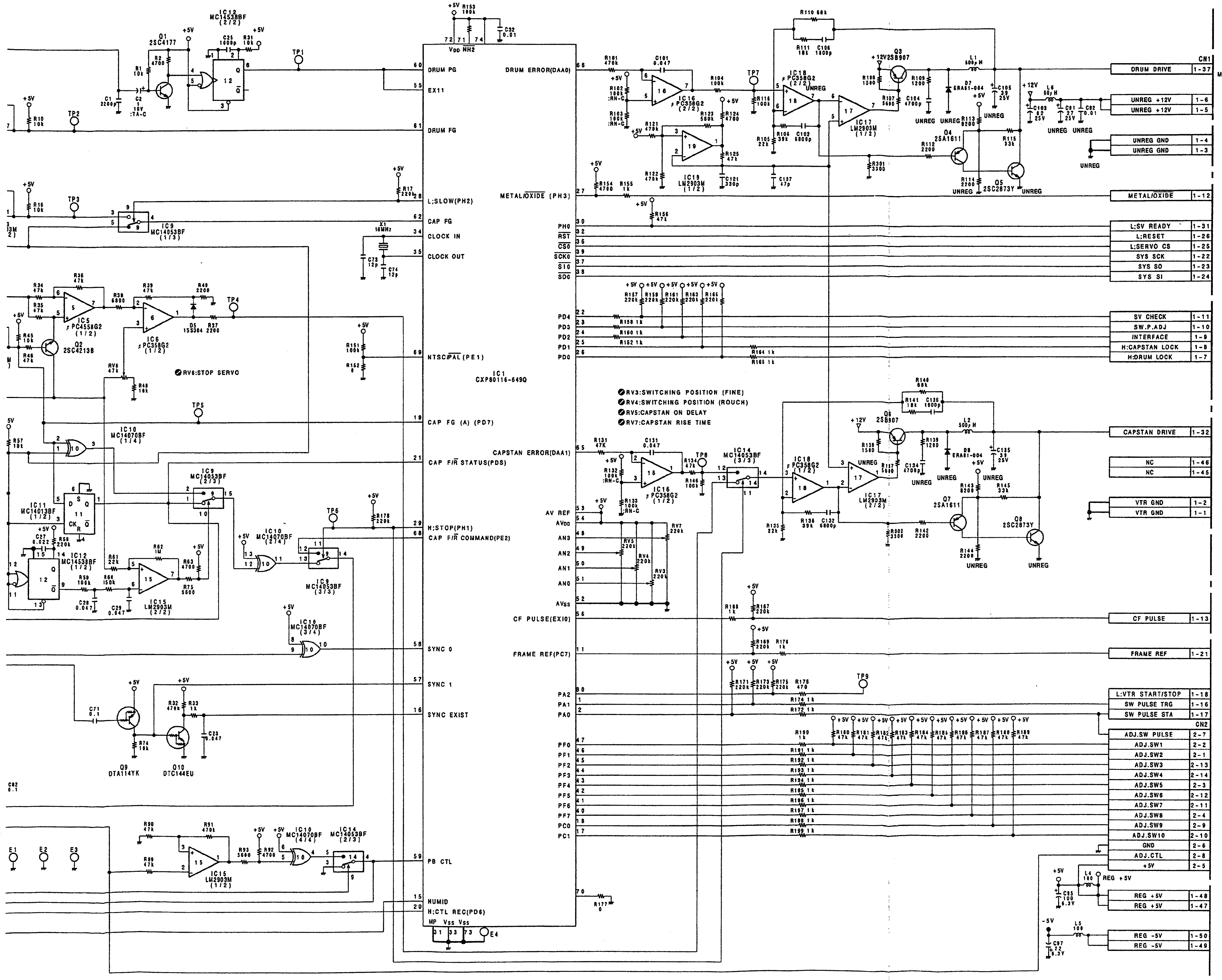
SV-97AP;DRUM/CAPSTAN SERVO


CN1
MB
1-43 DRUM PG(G)
1-42 DRUM PG(X)
1-44 DRUM FG
1-36 CAPSTAN FG (X)
1-27 SHAPED CAPSTAN FG
1-35 CAPSTAN FG(A)
1-34 CAPSTAN FG(B)
1-28 CAPSTAN FWD/REV STAUS
1-14 COMPOSITE SYNC (X)
1-19 ADVANCED SYNC
1-15 REC CTL SIG
1-20 FIELD PULSE
1-33 CAPSTAN FWD/REV OUT
1-38 PB CTL SIG
1-39 CTL HEAD(Y)
1-29 H;CTL REC
1-30 PB CTL
1-40 HUMID (X)
1-41 HUMID (G)
IC1
CXP80116-649Q
DRUM PG
EX11
DRUM FG
L;SLOW(PH2)
CAP FG
CLOCK IN
CLOCK OUT
NTSC/PAL (PE1)
CAP FG (A) (PD7)
CAP F/R STATUS(PD5)
H;STOP(PH1)
CAP F/R COMMAND(PE2)
SYNC 0
SYNC 1
SYNC EXIST
PB CTL
HUMID
H;CTL REC(PD6)
DRUM ERROR(DAA0)
METAL/OXIDE (PH3)
CAPSTAN ERROR(DAA1)
AV REF
CF PULSE(EX10)
FRAME REF(PC7)
X1 16MHz
IC2 PC4558G2
IC3 LM2903M
IC4 PC4558G2
IC5 PC4558G2
IC6 PC358G2
IC7 LM2903M
IC9 MC14053BF
IC10 MC14070BF
IC11 MC14013BF
IC12 MC14538BF
IC14 MC14053BF
IC15 LM2903M
IC16 PC358G2
IC17 LM2903M
IC18 PC358G2
IC19 LM2903M
IC22 TC4S11F
Q1 2SC4177
Q2 2SC4213B
Q3 2SB907
Q4 2SA1611
Q5 2SC2873Y
Q6 2SB907
Q7 2SA1611
Q8 2SC2873Y
Q9 DTA114YK
Q10 DTC144EU
D5 1SS304
D7 ERA81-004
D8 ERA81-004
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
E1
E2
E3
E4
+5V
+12V
UNREG
REG +5V
-5V

RV1:FG(A) DUTY
RV2:FG(B) DUTY

RV6:STOP SERVO

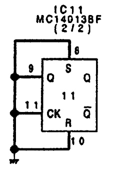
RV3:SWITCHING POSITION (FINE)
RV4:SWITCHING POSITION (ROUCH)
RV5:CAPSTAN ON DELAY
RV7:CAPSTAN RISE TIME


IC1
CXP80116-649Q
DRUM PG
EX11
DRUM FG
L;SLOW(PH2)
CAP FG
CLOCK IN
CLOCK OUT
NTSC/PAL (PE1)
CAP FG (A) (PD7)
CAP F/R STATUS(PD5)
H;STOP(PH1)
CAP F/R COMMAND(PE2)
SYNC 0
SYNC 1
SYNC EXIST
PB CTL
HUMID
H;CTL REC(PD6)
DRUM ERROR(DAA0)
METAL/OXIDE (PH3)
CAPSTAN ERROR(DAA1)
AV REF
CF PULSE(EXI0)
FRAME REF(PC7)
CN1
DRUM DRIVE 1-37
UNREG +12V 1-6
UNREG +12V 1-5
UNREG GND 1-4
UNREG GND 1-3
METAL/OXIDE 1-12
L;SV READY 1-31
L;RESET 1-26
L;SERVO CS 1-25
SYS SCK 1-22
SYS SO 1-23
SYS SI 1-24
SV CHECK 1-11
SW.P.ADJ 1-10
INTERFACE 1-9
H:CAPSTAN LOCK 1-8
H:DRUM LOCK 1-7
CAPSTAN DRIVE 1-32
NC 1-46
NC 1-45
VTR GND 1-2
VTR GND 1-1
CF PULSE 1-13
FRAME REF 1-21
L:VTR START/STOP 1-18
SW PULSE TRG 1-16
SW PULSE STA 1-17
CN2
ADJ.SW PULSE 2-7
ADJ.SW1 2-2
ADJ.SW2 2-1
ADJ.SW3 2-13
ADJ.SW4 2-14
ADJ.SW5 2-3
ADJ.SW6 2-12
ADJ.SW7 2-11
ADJ.SW8 2-4
ADJ.SW9 2-9
ADJ.SW10 2-10
GND 2-6
ADJ.CTL 2-8
+5V 2-5
REG +5V 1-48
REG +5V 1-47
REG -5V 1-50
REG -5V 1-49
MB

RV6:STOP SERVO

RV3:SWITCHING POSITION (FINE)
RV4:SWITCHING POSITION (ROUCH)
RV5:CAPSTAN ON DELAY
RV7:CAPSTAN RISE TIME

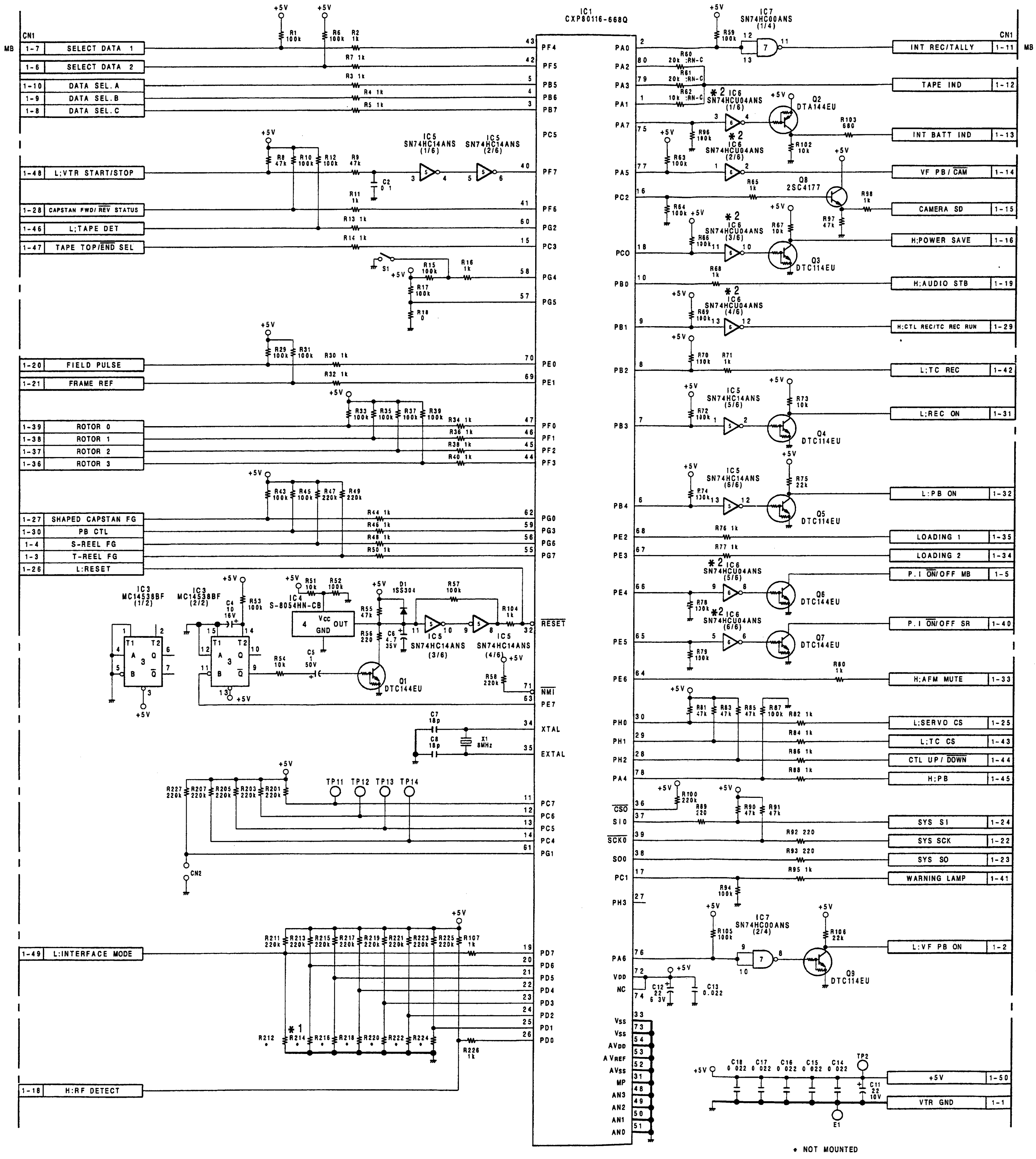
IC Ref	Parts No.	Vcc	VEE	Vss	PASS CON Ref
IC2	μPC4558G2	+5V/8P	GND/4P		C33 0.01
IC3	LM2903M	+5V/8P	GND/4P		C34 0.01
IC4	μPC4558G2	+5V/8P	GND/4P		C35 0.01
IC5	μPC4558G2	+5V/8P	GND/4P		C36 0.01
IC6	μPC358G2	+5V/8P	GND/4P		C37 0.01
IC7	LM2903M	+5V/8P	GND/4P		C38 0.01
IC9	MC14053BF	+5V/16P	GND/8P		C40 0.01
IC10	MC14070BF	+5V/14P	GND/7P		C41 0.01
IC11	MC14013BF	+5V/14P	GND/7P		C42 0.01
IC12	MC14538BF	+5V/16P	GND/8P		C43 0.01
IC14	MC14053BF	+5V/16P	GND/8P	-5V/7P	C45 0.01 C46 0.01
IC15	LM2903M	+5V/8P		-5V/4P	C47 0.01 C48 0.01
IC16	μPC358G2	+5V/8P	GND/4P		C49 0.01
IC17	LM2903M	+5V/8P	GND/4P		C50 0.01
IC18	μPC358G2	+5V/8P	GND/4P		C51 0.01
IC19	LM2903M	+5V/8P	GND/4P		C52 0.01
IC22	TC4S11F	+5V/6P	GND/3P		C39 0.01


IC11
MC14013BF
(2/2)
S
Q
CK
R
11

SV-97A/SV-97AP BOARD

1-625-540-14
BVW-400AP (EK);#40001-

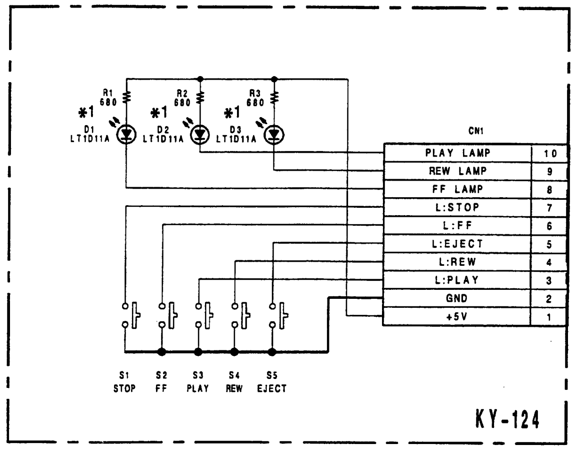
SY-117CP;SYSTEM CONTROL
KY-124;KEY BOARD


CN1
MB
SELECT DATA 1
SELECT DATA 2
DATA SEL.A
DATA SEL.B
DATA SEL.C
L;VTR START/STOP
CAPSTAN FWD/REV STATUS
L;TAPE DET
TAPE TOP/END SEL
FIELD PULSE
FRAME REF
ROTOR 0
ROTOR 1
ROTOR 2
ROTOR 3
SHAPED CAPSTAN FG
PB CTL
S-REEL FG
T-REEL FG
L;RESET
L;INTERFACE MODE
H;RF DETECT
IC1 CXP80116-668Q
INT REC/TALLY
TAPE IND
INT BATT IND
VF PB/CAM
CAMERA SD
H;POWER SAVE
H;AUDIO STB
H;CTL REC/TC REC RUN
L;TC REC
L;REC ON
L;PB ON
LOADING 1
LOADING 2
P.I ON/OFF MB
P.I ON/OFF SR
H;AFM MUTE
L;SERVO CS
L;TC CS
CTL UP/DOWN
H;PB
SYS SI
SYS SCK
SYS SO
WARNING LAMP
L;VF PB ON
+5V
VTR GND

* NOT MOUNTED

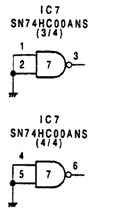
KY-124 BOARD

MARK	CHANGE INFORMATION	SERIAL NO.
*1	D1, D2, D3 GL-1HD11 ⟶ LT1D11A	EK:41087-


R1 680
R2 680
R3 680
*1
D1 LT1D11A
D2 LT1D11A
D3 LT1D11A
CN1
PLAY LAMP 10
REW LAMP 9
FF LAMP 8
L:STOP 7
L:FF 6
L:EJECT 5
L:REW 4
L:PLAY 3
GND 2
+5V 1
MB
S1 STOP
S2 FF
S3 PLAY
S4 REW
S5 EJECT
KY-124

KY-124 BOARD

1-625-549-11
BVW-400AP (EK) ;#40001-


IC7
SN74HC00ANS
(3/4)
IC7
SN74HC00ANS
(4/4)

SY-117CP BOARD

MARK	CHANGE INFORMATION	SERIAL NO.
*1	R214 0 DELETE	40182-
*2	IC6 TC40H004F ↓ SN74HCU04ANS	40411-

SY-117CP BOARD

1-625-539-21
BVW-400AP (EK) ;#40001-

TC-48AP(1/3);TIME CODE SW

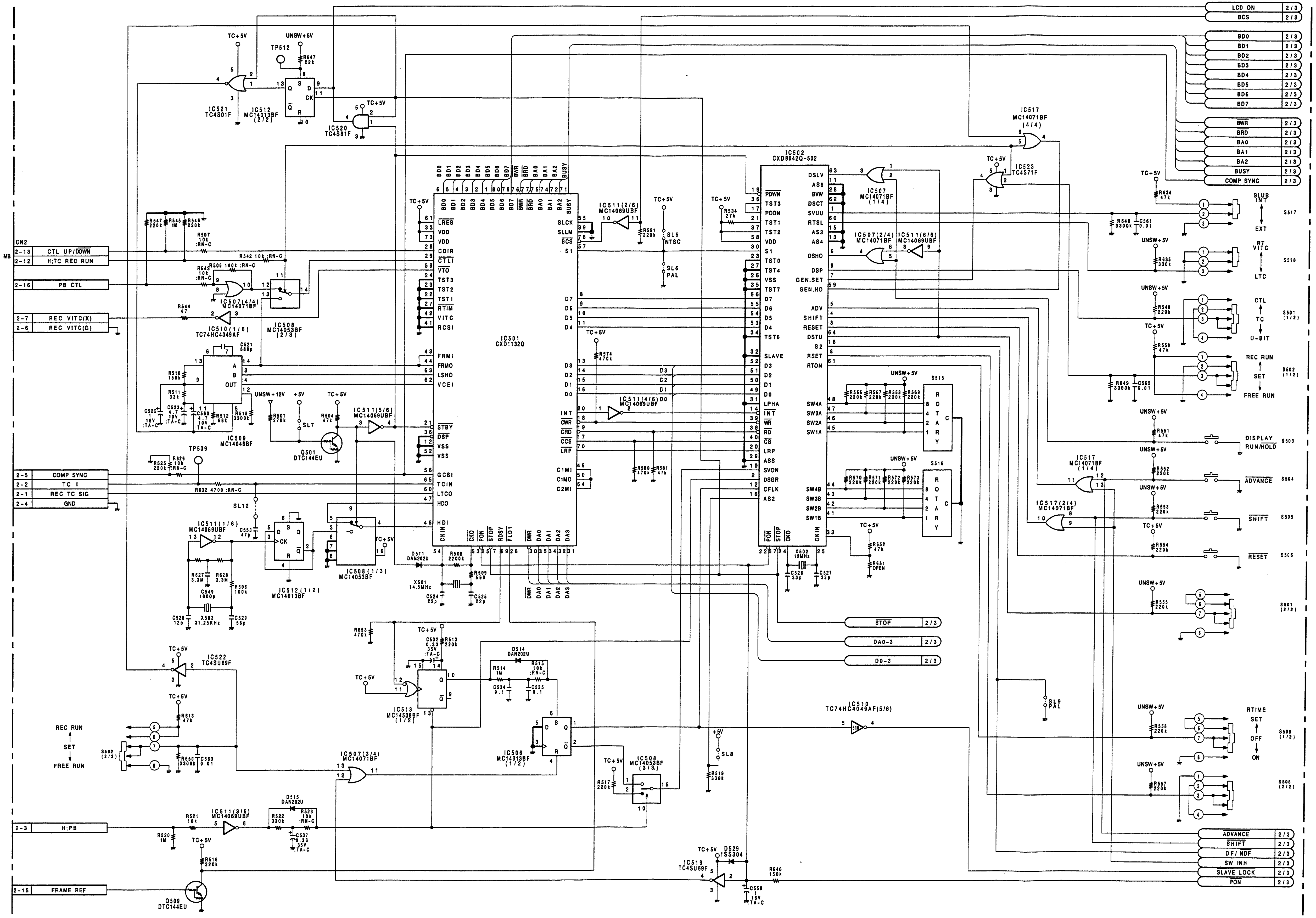
1

2

3

4

5


LCD ON
BCS
BD0
BD1
BD2
BD3
BD4
BD5
BD6
BD7
BWR
BRD
BA0
BA1
BA2
BUSY
COMP SYNC
2/3
IC517 MC14071BF (4/4)
IC523 TC4S71F
IC502 CXD8042Q-502
IC501 CXD1132Q
IC507 MC14071BF (1/4)
IC507(2/4) MC14071BF
IC511(6/6) MC14069UBF
IC511(2/6) MC14069UBF
IC521 TC4S01F
IC512 MC14013BF (2/2)
IC520 TC4S81F
TP512
UNSW+5V
TC+5V
CN2
MB
2-13 CTL UP/DOWN
2-12 H:TC REC RUN
2-16 PB CTL
2-7 REC VITC(X)
2-6 REC VITC(G)
2-5 COMP SYNC
2-2 TC I
2-1 REC TC SIG
2-4 GND
2-3 H:PB
2-15 FRAME REF
IC507(4/4) MC14071BF
IC508 MC14053BF (2/3)
IC510(1/6) TC74HC4049AF
IC509 MC14046BF
IC511(5/6) MC14069UBF
Q501 DTC144EU
TP509
SL12
IC511(1/6) MC14069UBF
IC512(1/2) MC14013BF
IC508(1/3) MC14053BF
X503 31.25KHz
X501 14.5MHz
X502 12MHz
D511 DAN202U
IC522 TC4SU69F
REC RUN
SET
FREE RUN
S502 (2/2)
IC513 MC14538BF (1/2)
D514 DAN202U
IC506 MC14013BF (1/2)
IC508 MC14053BF (3/3)
IC507(3/4) MC14071BF
IC511(3/6) MC14069UBF
D515 DAN202U
Q509 DTC144EU
IC519 TC4SU69F
D529 1SS304
IC510 TC74HC4049AF(5/6)
SL5 NTSC
SL6 PAL
SL7
SL8
SL9 PAL
S515
S516
ROTARY
STOP
DA0-3
D0-3
SLUB INT EXT S517
RT VITC LTC S518
CTL TC U-BIT S501 (1/2)
REC RUN SET FREE RUN S502 (1/2)
DISPLAY RUN/HOLD S503
ADVANCE S504
SHIFT S505
RESET S506
S501 (2/2)
RTIME SET OFF ON S508 (1/2)
S508 (2/2)
ADVANCE
SHIFT
DF/NDF
SW INH
SLAVE LOCK
PON

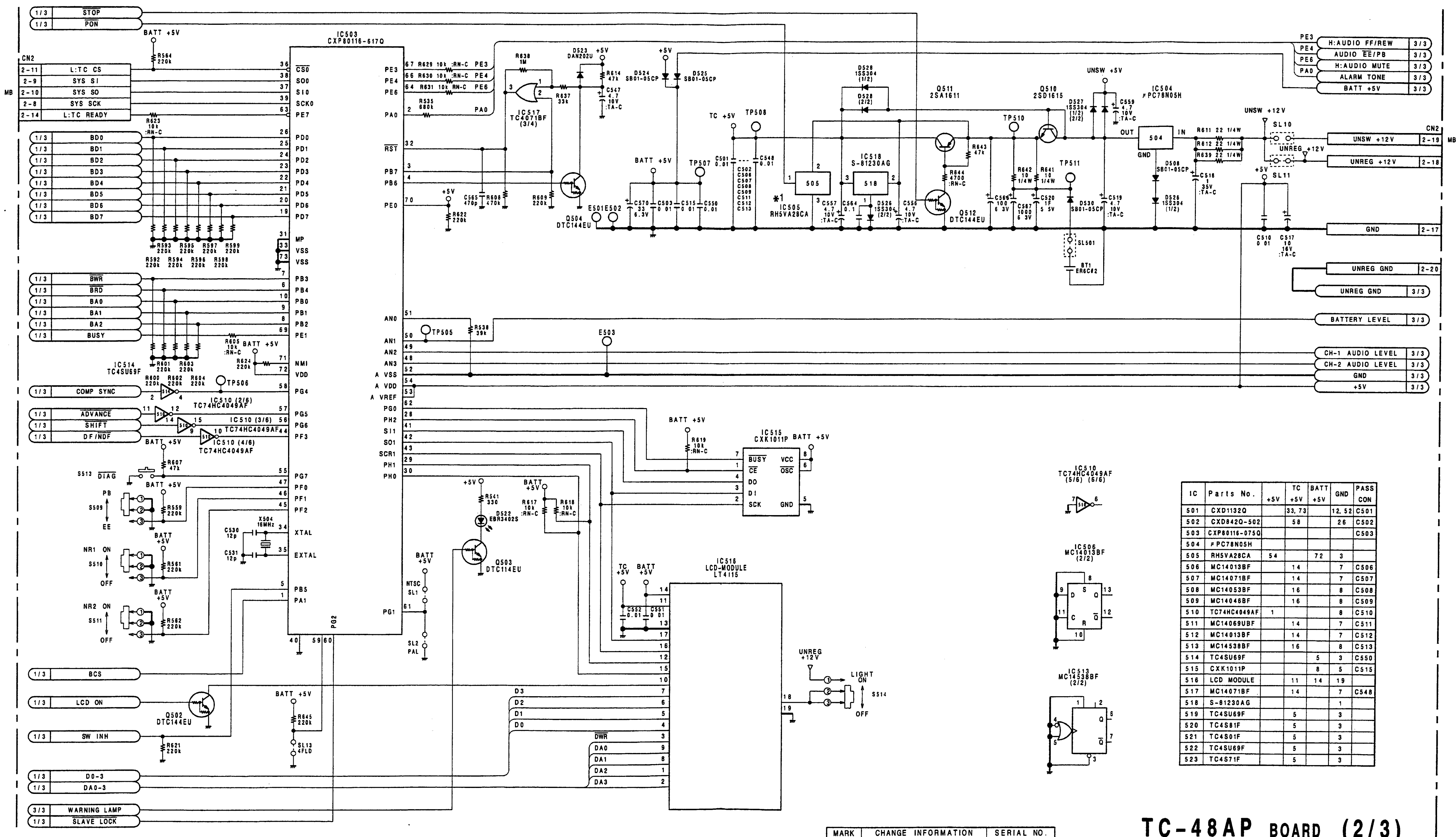
TC-48AP BOARD (1/3)

1-625-545-21

BVW-400AP(EK);#40001-

A B C D E F G H

TC-48AP(2/3);TIME CODE SW, INDICATOR


1/3 STOP
1/3 PON
CN2
2-11 L:TC CS
2-9 SYS SI
2-10 SYS SO
2-8 SYS SCK
2-14 L:TC READY
MB
1/3 BD0
1/3 BD1
1/3 BD2
1/3 BD3
1/3 BD4
1/3 BD5
1/3 BD6
1/3 BD7
1/3 BWR
1/3 BRD
1/3 BA0
1/3 BA1
1/3 BA2
1/3 BUSY
1/3 COMP SYNC
1/3 ADVANCE
1/3 SHIFT
1/3 DF/NDF
1/3 BCS
1/3 LCD ON
1/3 SW INH
1/3 D0-3
1/3 DA0-3
3/3 WARNING LAMP
1/3 SLAVE LOCK
IC503 CXP80116-617Q
IC514 TC4SU69F
IC510 (2/6) TC74HC4049AF
IC510 (3/6) TC74HC4049AF
IC510 (4/6) TC74HC4049AF
IC517 TC4071BF (3/4)
IC505 RH5VA28CA
IC518 S-81230AG
IC504 μPC78N05H
IC515 CXK1011P
IC516 LCD-MODULE LT4115
Q502 DTC144EU
Q503 DTC114EU
Q504 DTC144EU
Q510 2SD1615
Q511 2SA1611
Q512 DTC144EU
D522 EBR3402S
BT1 ER6C#2
X504 16MHz
S513 DIAG
S509 PB EE
S510 NR1 ON OFF
S511 NR2 ON OFF
S514 LIGHT ON OFF
NTSC SL1
SL2 PAL
SL13 4FLD
UNREG +12V
UNSW +5V
UNSW +12V
TP505
TP506
TP507
TP508
TP510
TP511
E501 E502
E503
PE3 H:AUDIO FF/REW 3/3
PE4 AUDIO EE/PB 3/3
PE6 H:AUDIO MUTE 3/3
PA0 ALARM TONE 3/3
BATT +5V 3/3
CN2
UNSW +12V 2-19
UNREG +12V 2-18
MB
GND 2-17
UNREG GND 2-20
UNREG GND 3/3
BATTERY LEVEL 3/3
CH-1 AUDIO LEVEL 3/3
CH-2 AUDIO LEVEL 3/3
GND 3/3
+5V 3/3
IC510 TC74HC4049AF (5/6) (6/6)
IC506 MC14013BF (2/2)
IC513 MC14538BF (2/2)
*1

IC	Parts No.	+5V	TC +5V	BATT +5V	GND	PASS CON
501	CXD1132Q		33, 73		12, 52	C501
502	CXD842Q-502		58		26	C502
503	CXP80116-075Q					C503
504	μPC78N05H					
505	RH5VA28CA	54		72	3	
506	MC14013BF		14		7	C506
507	MC14071BF		14		7	C507
508	MC14053BF		16		8	C508
509	MC14046BF		16		8	C509
510	TC74HC4049AF	1			8	C510
511	MC14069UBF		14		7	C511
512	MC14013BF		14		7	C512
513	MC14538BF		16		8	C513
514	TC4SU69F			5	3	C550
515	CXK1011P			8	5	C515
516	LCD MODULE		11	14	19	
517	MC14071BF		14		7	C548
518	S-81230AG				1	
519	TC4SU69F		5		3	
520	TC4S81F		5		3	
521	TC4S01F		5		3	
522	TC4SU69F		5		3	
523	TC4S71F		5		3	

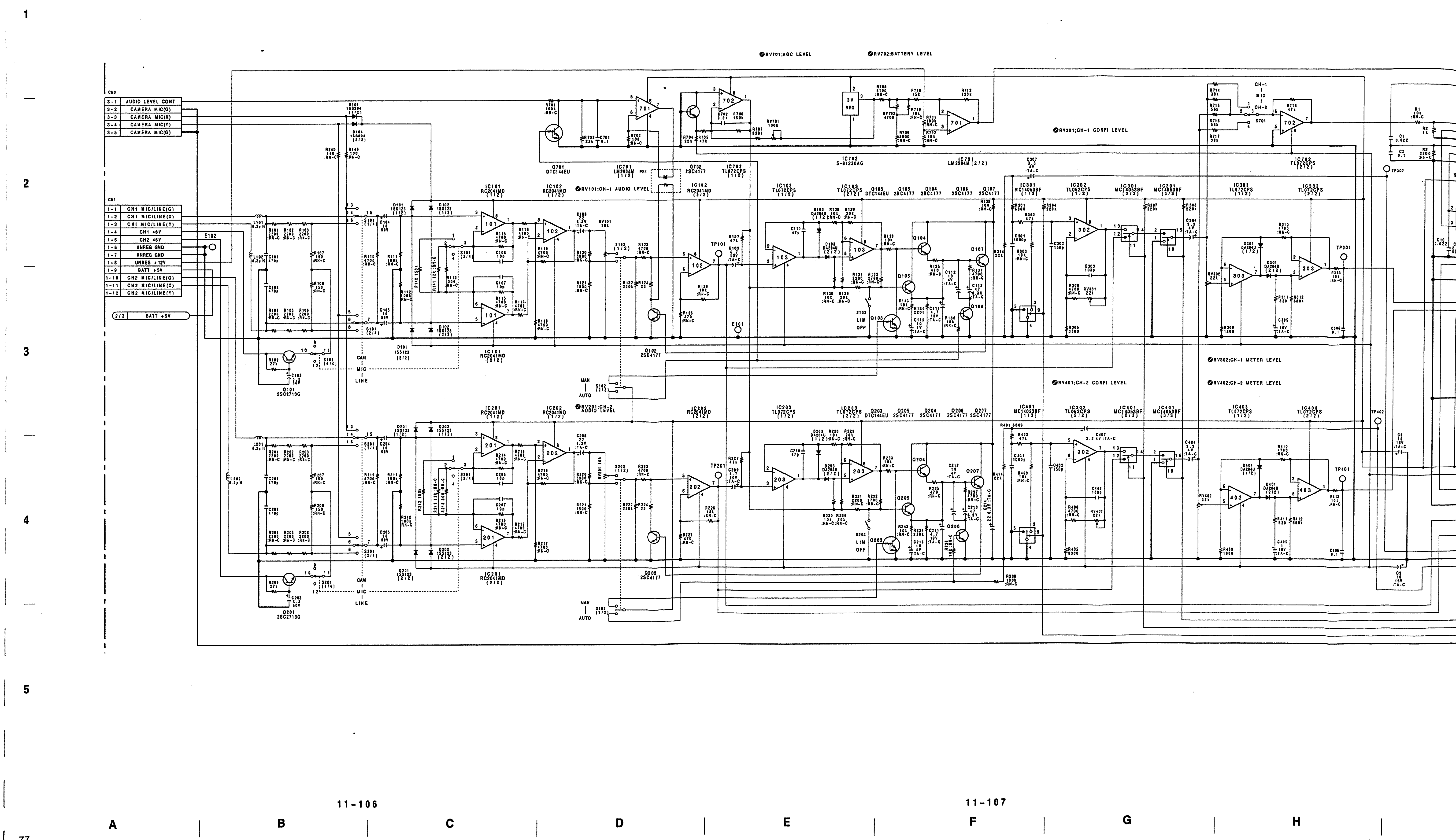
MARK	CHANGE INFORMATION	SERIAL NO.
*1	IC505 RH5VA30CA ↓ RH5VA28CA	EK:41087-

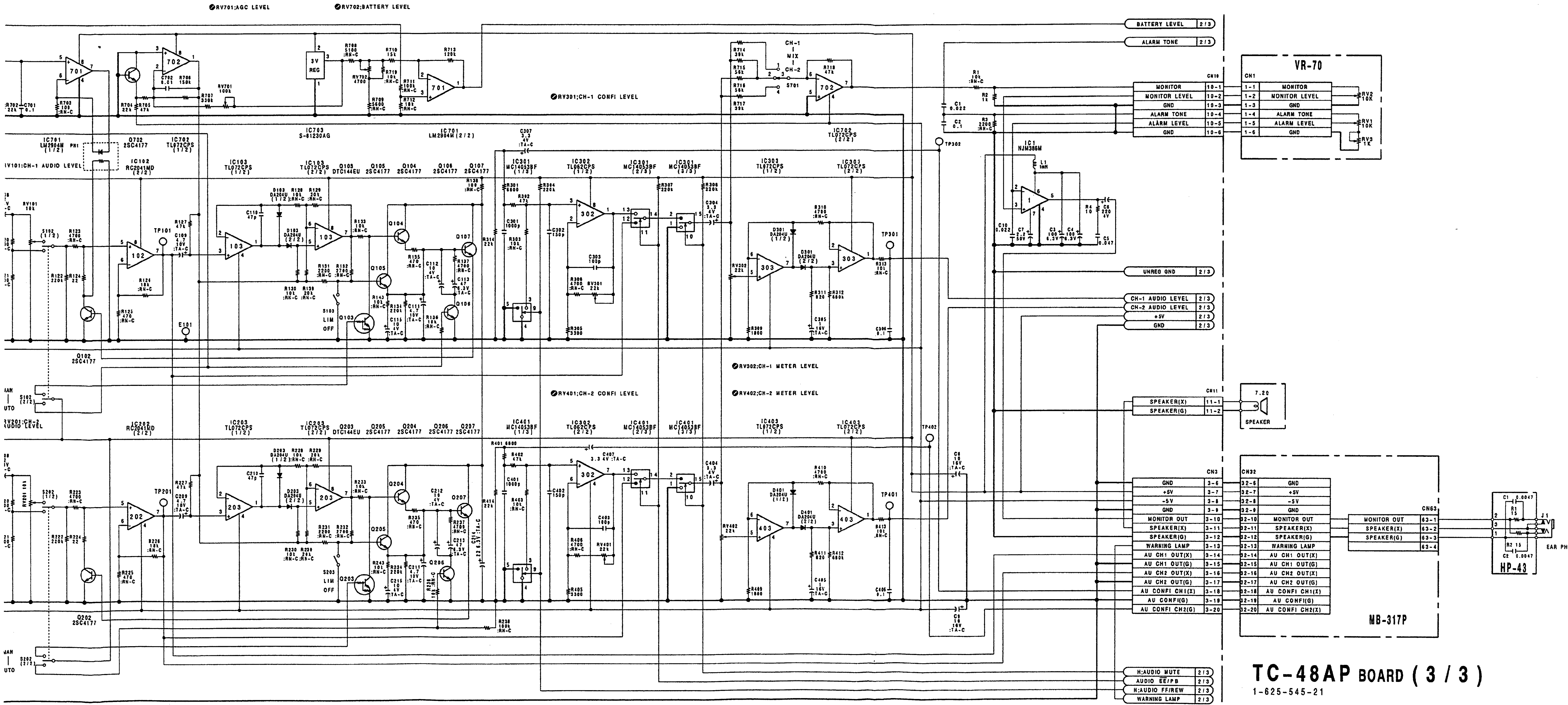
TC-48AP BOARD (2/3)

1-625-545-21

BVW-400AP(EK) ;#40001-

TC-48AP(3/3);INPUT SELECT,LEVEL CONTROL,MONITOR


1
2
3
4
5
CN3
3-1 AUDIO LEVEL CONT
3-2 CAMERA MIC(G)
3-3 CAMERA MIC(X)
3-4 CAMERA MIC(Y)
3-5 CAMERA MIC(G)
CN1
1-1 CH1 MIC/LINE(G)
1-2 CH1 MIC/LINE(X)
1-3 CH1 MIC/LINE(Y)
1-4 CH1 48V
1-5 CH2 48V
1-6 UNREG GND
1-7 UNREG GND
1-8 UNREG +12V
1-9 BATT +5V
1-10 CH2 MIC/LINE(G)
1-11 CH2 MIC/LINE(X)
1-12 CH2 MIC/LINE(Y)
2/3 BATT +5V
E102
E101
⊘RV701:AGC LEVEL
⊘RV702:BATTERY LEVEL
⊘RV101:CH-1 AUDIO LEVEL
⊘RV201:CH-2 AUDIO LEVEL
⊘RV301:CH-1 CONFI LEVEL
⊘RV302:CH-1 METER LEVEL
⊘RV401:CH-2 CONFI LEVEL
⊘RV402:CH-2 METER LEVEL
Q701 DTC144EU
IC701 LM2904M (1/2)
Q702 2SC4177
IC702 TL072CPS (1/2)
IC703 S-81230AG
IC701 LM2904M (2/2)
IC702 TL072CPS (2/2)
3V REG
CH-1 MIX CH-2
S701
IC101 RC2041MD (1/2)
IC102 RC2041MD (1/2)
IC102 RC2041MD (2/2)
IC103 TL072CPS (1/2)
IC103 TL072CPS (2/2)
Q103 DTC144EU
Q105 2SC4177
Q104 2SC4177
Q106 2SC4177
Q107 2SC4177
IC301 MC14053BF (1/3)
IC302 TL062CPS (1/2)
IC301 MC14053BF (2/3)
IC301 MC14053BF (3/3)
IC303 TL072CPS (1/2)
IC303 TL072CPS (2/2)
IC101 RC2041MD (2/2)
Q101 2SC2713G
Q102 2SC4177
S101 (1/4)
S101 (2/4)
S101 (3/4)
S101 (4/4)
S102 (1/2)
S102 (2/2)
S103
LIM OFF
CAM MIC LINE
MAN AUTO
TP101
TP301
TP302
D104 1SS304 (1/2)
D104 1SS304 (2/2)
D101 1SS123 (1/2)
D101 1SS123 (2/2)
D102 1SS123 (1/2)
D102 1SS123 (2/2)
D103 DA204U (1/2)
D103 DA204U (2/2)
D301 DA204U (1/2)
D301 DA204U (2/2)
L101 8.2μH
L102 8.2μH
IC201 RC2041MD (1/2)
IC202 RC2041MD (1/2)
IC202 RC2041MD (2/2)
IC203 TL072CPS (1/2)
IC203 TL072CPS (2/2)
Q203 DTC144EU
Q205 2SC4177
Q204 2SC4177
Q206 2SC4177
Q207 2SC4177
IC401 MC14053BF (1/3)
IC302 TL062CPS (2/2)
IC401 MC14053BF (2/3)
IC401 MC14053BF (3/3)
IC403 TL072CPS (1/2)
IC403 TL072CPS (2/2)
IC201 RC2041MD (2/2)
Q201 2SC2713G
Q202 2SC4177
S201 (1/4)
S201 (2/4)
S201 (3/4)
S201 (4/4)
S202 (1/2)
S202 (2/2)
S203
LIM OFF
CAM MIC LINE
MAN AUTO
TP201
TP401
TP402
D201 1SS123 (1/2)
D201 1SS123 (2/2)
D202 1SS123 (1/2)
D202 1SS123 (2/2)
D203 DA204U (1/2)
D203 DA204U (2/2)
D401 DA204U (1/2)
D401 DA204U (2/2)
L201 8.2μH
L202 8.2μH
11-106
11-107
A
B
C
D
E
F
G
H


RV701:AGC LEVEL
RV702:BATTERY LEVEL
RV301:CH-1 CONFI LEVEL
RV302:CH-1 METER LEVEL
RV401:CH-2 CONFI LEVEL
RV402:CH-2 METER LEVEL
RV101:CH-1 AUDIO LEVEL
RV201:CH-2 AUDIO LEVEL
IC701 LM2904M (1/2)
Q702 2SC4177
IC702 TL072CPS (1/2)
IC703 S-81230AG
IC701 LM2904M (2/2)
IC702 TL072CPS (2/2)
IC102 RC2041MD (2/2)
IC103 TL072CPS (1/2)
IC103 TL072CPS (2/2)
Q103 DTC144EU
Q105 2SC4177
Q104 2SC4177
Q106 2SC4177
Q107 2SC4177
IC301 MC14053BF (1/3)
IC302 TL062CPS (1/2)
IC301 MC14053BF (2/3)
IC301 MC14053BF (3/3)
IC303 TL072CPS (1/2)
IC303 TL072CPS (2/2)
IC1 NJM386M
Q102 2SC4177
IC202 RC2041MD (2/2)
IC203 TL072CPS (1/2)
IC203 TL072CPS (2/2)
Q203 DTC144EU
Q205 2SC4177
Q204 2SC4177
Q206 2SC4177
Q207 2SC4177
IC401 MC14053BF (1/3)
IC302 TL062CPS (2/2)
IC401 MC14053BF (2/3)
IC401 MC14053BF (3/3)
IC403 TL072CPS (1/2)
IC403 TL072CPS (2/2)
Q202 2SC4177
3V REG
CH-1 MIX CH-2
S701
S102 (1/2)
S103 LIM OFF
S202 (1/2)
S203 LIM OFF
S102 (2/2)
S202 (2/2)
TP101
TP201
TP301
TP302
TP401
TP402
E101
BATTERY LEVEL 2/3
ALARM TONE 2/3
VR-70
CN10
CN1
MONITOR 10-1 1-1 MONITOR
MONITOR LEVEL 10-2 1-2 MONITOR LEVEL
GND 10-3 1-3 GND
ALARM TONE 10-4 1-4 ALARM TONE
ALARM LEVEL 10-5 1-5 ALARM LEVEL
GND 10-6 1-6 GND
RV2 10K
RV1 10K
RV3 1K
UNREG GND 2/3
CH-1 AUDIO LEVEL 2/3
CH-2 AUDIO LEVEL 2/3
+5V 2/3
GND 2/3
CN11
SPEAKER(X) 11-1
SPEAKER(G) 11-2
7.2Ω
SPEAKER
CN3
CN32
GND 3-6 32-6 GND
+5V 3-7 32-7 +5V
-5V 3-8 32-8 -5V
GND 3-9 32-9 GND
MONITOR OUT 3-10 32-10 MONITOR OUT
SPEAKER(X) 3-11 32-11 SPEAKER(X)
SPEAKER(G) 3-12 32-12 SPEAKER(G)
WARNING LAMP 3-13 32-13 WARNING LAMP
AU CH1 OUT(X) 3-14 32-14 AU CH1 OUT(X)
AU CH1 OUT(G) 3-15 32-15 AU CH1 OUT(G)
AU CH2 OUT(X) 3-16 32-16 AU CH2 OUT(X)
AU CH2 OUT(G) 3-17 32-17 AU CH2 OUT(G)
AU CONFI CH1(X) 3-18 32-18 AU CONFI CH1(X)
AU CONFI(G) 3-19 32-19 AU CONFI(G)
AU CONFI CH2(G) 3-20 32-20 AU CONFI CH2(X)
MB-317P
CN63
MONITOR OUT 63-1
SPEAKER(X) 63-2
SPEAKER(G) 63-3
63-4
C1 0.0047
R1 15
R2 15
C2 0.0047
J1
EAR PHONE JACK
HP-43
H:AUDIO MUTE 2/3
AUDIO EE/PB 2/3
H:AUDIO FF/REW 2/3
WARNING LAMP 2/3

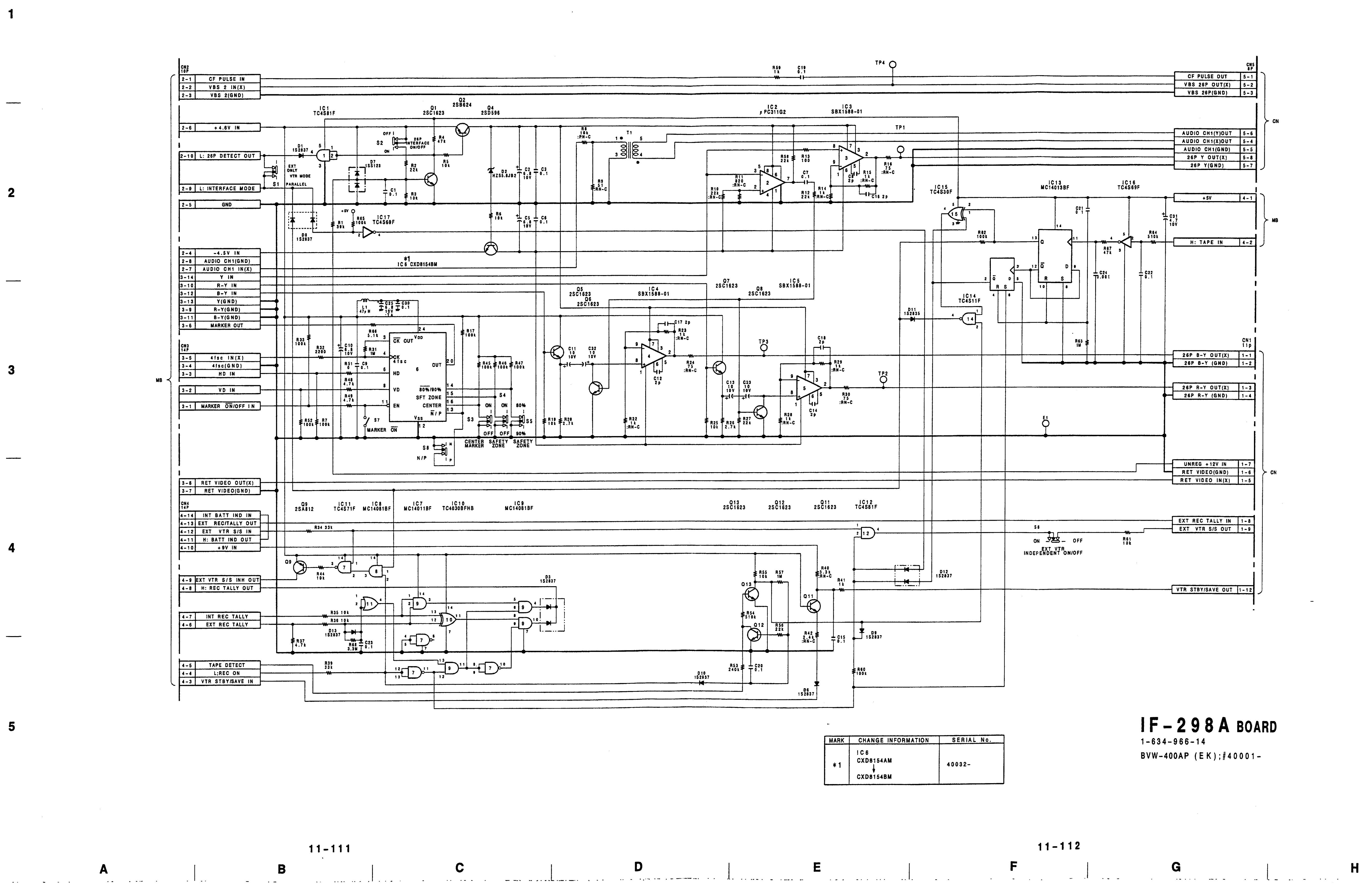
TC-48AP BOARD (3 / 3)
1-625-545-21

VR-70 BOARD
1-625-553-13

HP-43 BOARD
1-627-593-12

BVW-400AP(EK);#40001-

IF-298A;INTERFACE


1
2
3
4
5
A
B
C
D
E
F
G
H
CN2 10P
2-1 CF PULSE IN
2-2 VBS 2 IN(X)
2-3 VBS 2(GND)
2-6 +4.8V IN
2-10 L: 26P DETECT OUT
2-9 L: INTERFACE MODE
2-5 GND
2-4 -4.5V IN
2-8 AUDIO CH1(GND)
2-7 AUDIO CH1 IN(X)
3-14 Y IN
3-10 R-Y IN
3-12 B-Y IN
3-13 Y(GND)
3-9 R-Y(GND)
3-11 B-Y(GND)
3-6 MARKER OUT
CN3 14P
3-5 4fsc IN(X)
3-4 4fsc(GND)
3-3 HD IN
3-2 VD IN
3-1 MARKER ON/OFF IN
3-8 RET VIDEO OUT(X)
3-7 RET VIDEO(GND)
CN4 14P
4-14 INT BATT IND IN
4-13 EXT REC/TALLY OUT
4-12 EXT VTR S/S IN
4-11 H: BATT IND OUT
4-10 +9V IN
4-9 EXT VTR S/S INH OUT
4-8 H: REC TALLY OUT
4-7 INT REC TALLY
4-6 EXT REC TALLY
4-5 TAPE DETECT
4-4 L;REC ON
4-3 VTR STBY/SAVE IN
MB
CN5 8P
CF PULSE OUT 5-1
VBS 26P OUT(X) 5-2
VBS 26P(GND) 5-3
AUDIO CH1(Y)OUT 5-6
AUDIO CH1(X)OUT 5-4
AUDIO CH1(GND) 5-5
26P Y OUT(X) 5-8
26P Y(GND) 5-7
CN
+5V 4-1
H: TAPE IN 4-2
MB
CN1 11P
26P B-Y OUT(X) 1-1
26P B-Y (GND) 1-2
26P R-Y OUT(X) 1-3
26P R-Y (GND) 1-4
UNREG +12V IN 1-7
RET VIDEO(GND) 1-6
RET VIDEO IN(X) 1-5
CN
EXT REC TALLY IN 1-8
EXT VTR S/S OUT 1-9
VTR STBY/SAVE OUT 1-12
IC1 TC4S81F
Q1 2SC1623
Q2 2SB624
Q4 2SD596
IC2 μPC311G2
IC3 SBX1588-01
TP1
TP2
TP3
TP4
IC15 TC4S30F
IC13 MC14013BF
IC16 TC4S69F
IC14 TC4S11F
IC17 TC4S69F
*1 IC6 CXD8154BM
Q5 2SC1623
Q6 2SC1623
IC4 SBX1588-01
Q7 2SC1623
Q8 2SC1623
IC5 SBX1588-01
S1 EXT ONLY VTR MODE PARALLEL
S2 26P INTERFACE ON/OFF
S3 CENTER MARKER
S4 SAFETY ZONE
S5 SAFETY ZONE 80% 90%
S6 EXT VTR INDEPENDENT ON/OFF
S7 MARKER ON
S8 N/P
Q9 2SA812
IC11 TC4S71F
IC8 MC14081BF
IC7 MC14011BF
IC10 TC4030BFHB
IC9 MC14081BF
Q13 2SC1623
Q12 2SC1623
Q11 2SC1623
IC12 TC4S81F
E1

MARK	CHANGE INFORMATION	SERIAL No.
*1	IC6 CXD8154AM ↓ CXD8154BM	40032-

IF-298A BOARD
1-634-966-14
BVW-400AP (EK);♯40001-

PS-162;POWER DISTRIBUTOR

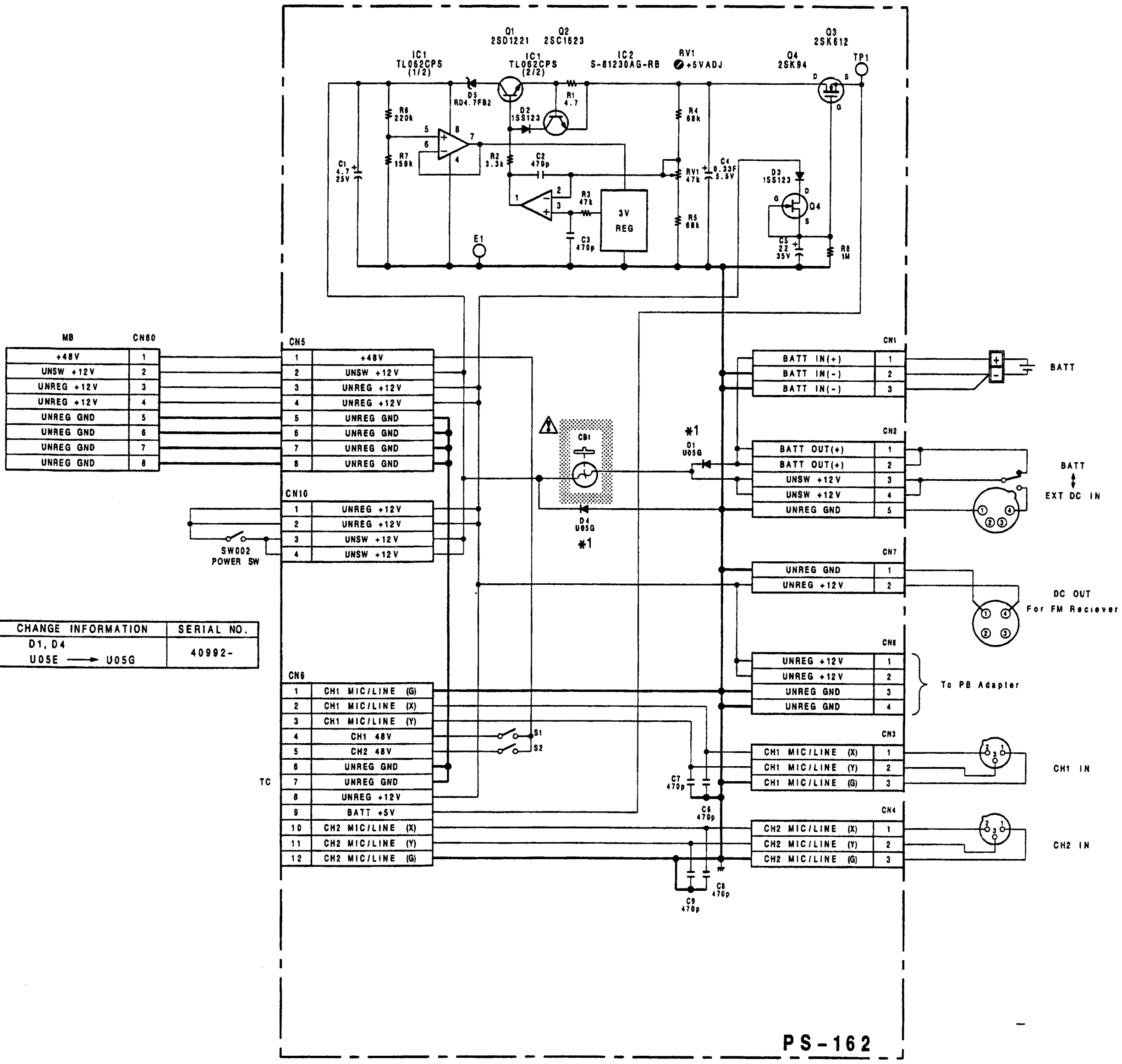
1

2

3

4

5


IC1
TL062CPS
(1/2)
Q1
2SD1221
Q2
2SC1623
IC1
TL062CPS
(2/2)
IC2
S-81230AG-RB
RV1
+5VADJ
Q3
2SK612
Q4
2SK94
TP1
D5
RD4.7FB2
R1
4.7
D2
1SS123
R6
220k
R7
150k
C1
4.7
25V
R2
3.3k
C2
470p
R3
47k
C3
470p
3V
REG
E1
R4
68k
RV1
47k
R5
68k
C4
0.33F
5.5V
D3
1SS123
Q4
C5
22
35V
R8
1M
MB
CN60
+48V
UNSW +12V
UNREG +12V
UNREG +12V
UNREG GND
UNREG GND
UNREG GND
UNREG GND
CN5
CN10
SW002
POWER SW
CB1
*1
D1
U05G
D4
U05G
*1
CN1
BATT IN(+)
BATT IN(-)
BATT IN(-)
BATT
CN2
BATT OUT(+)
BATT OUT(+)
UNSW +12V
UNSW +12V
UNREG GND
BATT
EXT DC IN
CN7
UNREG GND
UNREG +12V
DC OUT
For FM Reciever
CN8
UNREG +12V
UNREG +12V
UNREG GND
UNREG GND
To PB Adapter
CN6
TC
CH1 MIC/LINE (G)
CH1 MIC/LINE (X)
CH1 MIC/LINE (Y)
CH1 48V
CH2 48V
UNREG GND
UNREG GND
UNREG +12V
BATT +5V
CH2 MIC/LINE (X)
CH2 MIC/LINE (Y)
CH2 MIC/LINE (G)
S1
S2
C7
470p
C6
470p
C8
470p
C9
470p
CN3
CH1 MIC/LINE (X)
CH1 MIC/LINE (Y)
CH1 MIC/LINE (G)
CH1 IN
CN4
CH2 MIC/LINE (X)
CH2 MIC/LINE (Y)
CH2 MIC/LINE (G)
CH2 IN
PS-162

MARK	CHANGE INFORMATION	SERIAL NO.
*1	D1, D4 U05E ⟶ U05G	40992-

注意１；⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

NOTE:

The shaded and ⚠ -marked components are critical to safety.
Replace only with same components as specified.

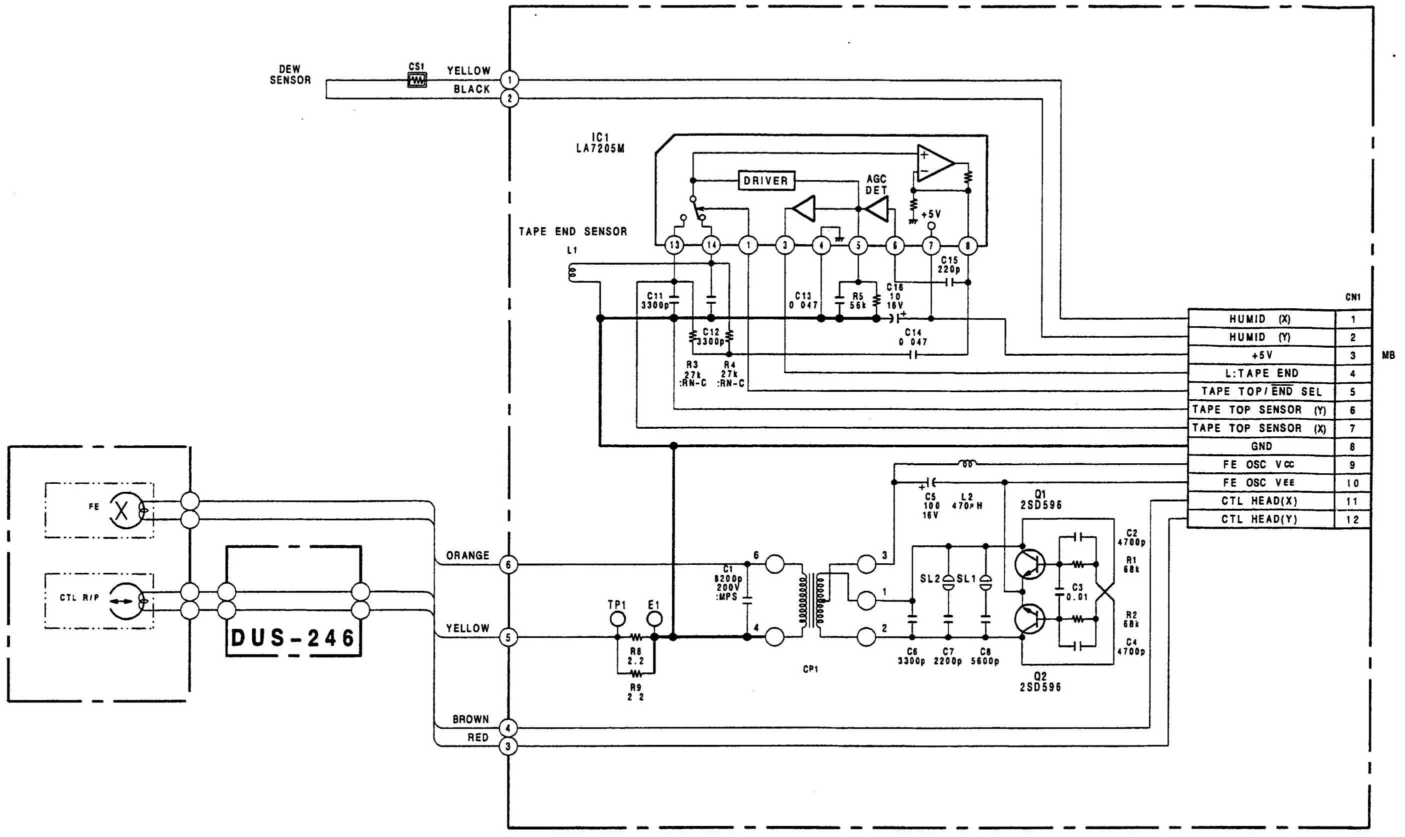
PS-162 BOARD

1-625-547-13, 14

BVW-400AP (EK) ;#40001-

A | B | C | D

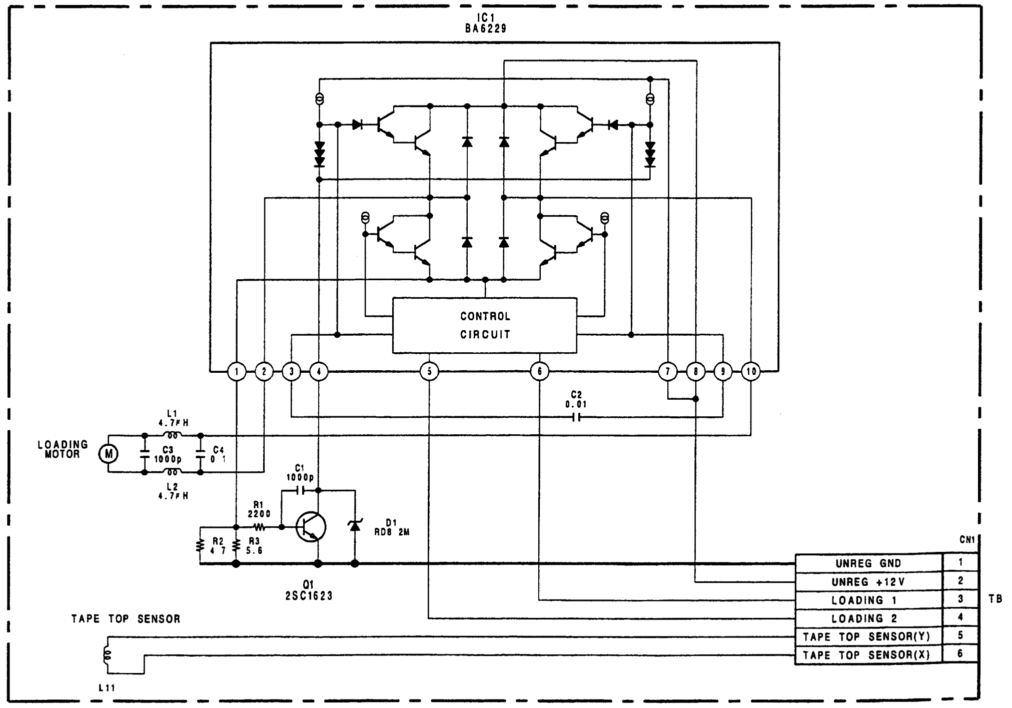
FE-4;FULL ERASE
LD-21;LOADING
SR-40;MECHANICAL POSITION SENSOR


DEW SENSOR
CS1
YELLOW
BLACK
IC1
LA7205M
DRIVER
AGC DET
+5V
TAPE END SENSOR
L1
C11 3300p
C12 3300p
R3 27k :RN-C
R4 27k :RN-C
C13 0 047
R5 56k
C16 10 16V
C15 220p
C14 0 047
CN1
HUMID (X) 1
HUMID (Y) 2
+5V 3
L:TAPE END 4
TAPE TOP/END SEL 5
TAPE TOP SENSOR (Y) 6
TAPE TOP SENSOR (X) 7
GND 8
FE OSC Vcc 9
FE OSC VEE 10
CTL HEAD(X) 11
CTL HEAD(Y) 12
MB
FE
CTL R/P
DUS-246
ORANGE
YELLOW
BROWN
RED
TP1
E1
R8 2.2
R9 2 2
C1 8200p 200V :MPS
CP1
C5 100 16V
L2 470µH
Q1 2SD596
Q2 2SD596
SL2
SL1
C6 3300p
C7 2200p
C8 5600p
C2 4700p
R1 68k
C3 0.01
R2 68k
C4 4700p

FE-4 BOARD

1-625-551-13, 14

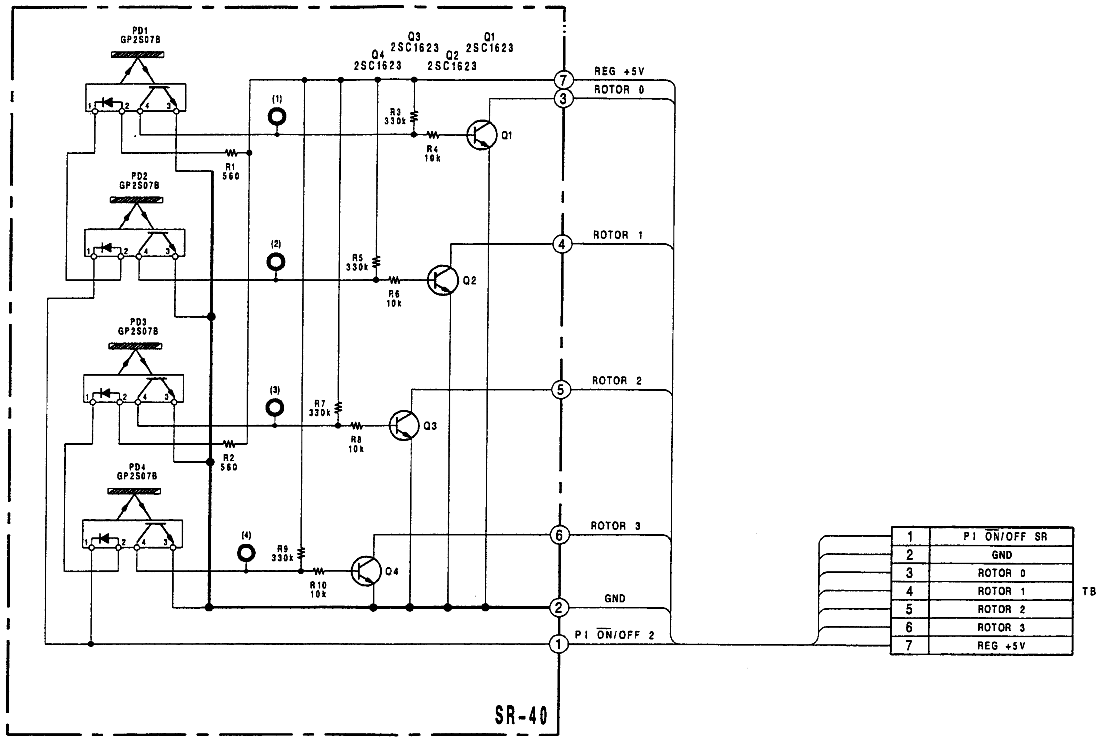
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-


IC1
BA6229
CONTROL CIRCUIT
C2 0.01
L1 4.7µH
LOADING MOTOR
M
C3 1000p
C4 0 1
L2 4.7µH
C1 1000p
R1 2200
R2 4 7
R3 5.6
D1 RD8 2M
Q1 2SC1623
TAPE TOP SENSOR
L11
CN1
UNREG GND 1
UNREG +12V 2
LOADING 1 3
LOADING 2 4
TAPE TOP SENSOR(Y) 5
TAPE TOP SENSOR(X) 6
TB

LD-21 BOARD

1-625-548-14

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

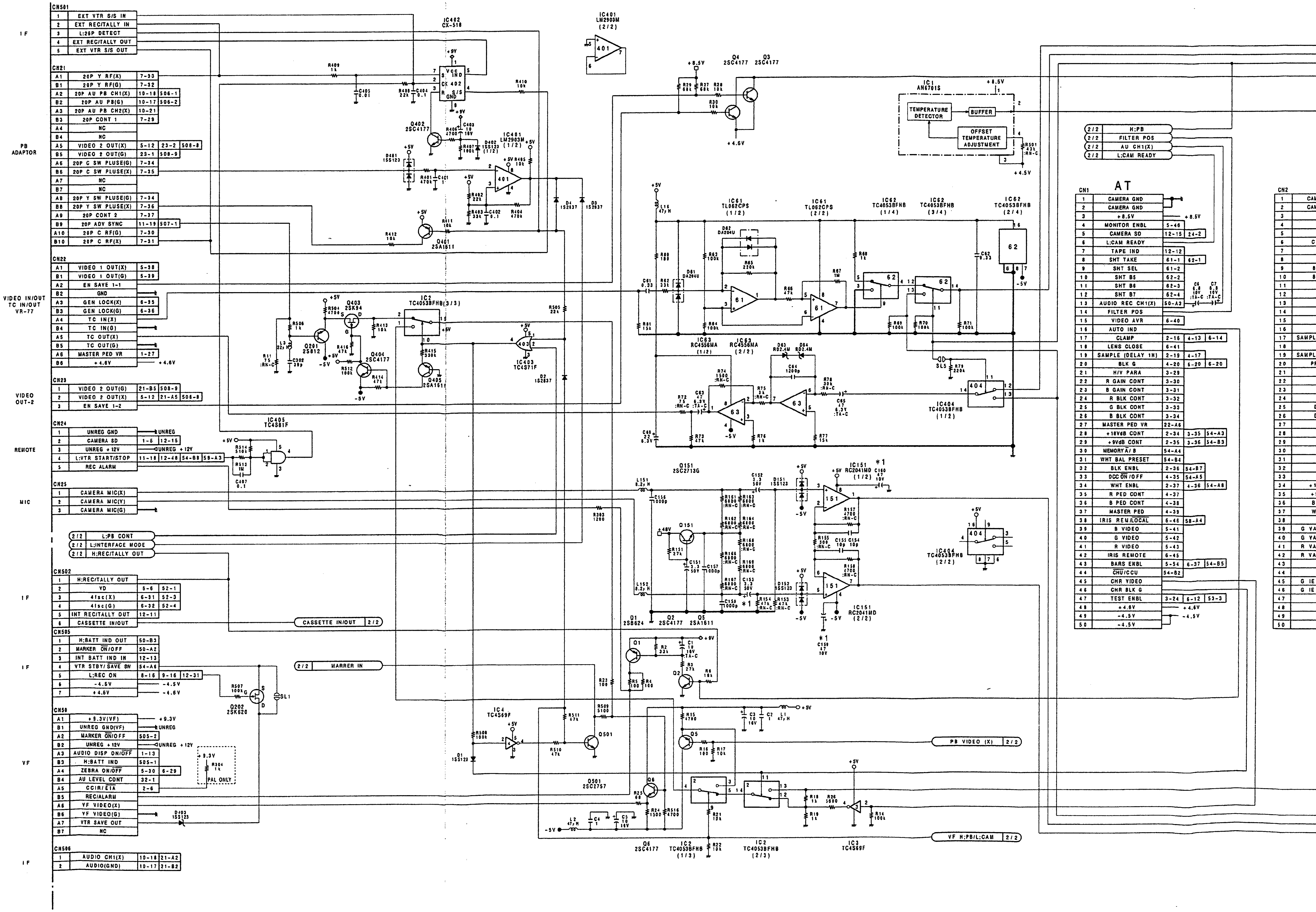

PD1 GP2S07B
PD2 GP2S07B
PD3 GP2S07B
PD4 GP2S07B
Q4 2SC1623
Q3 2SC1623
Q2 2SC1623
Q1 2SC1623
(1)
(2)
(3)
(4)
R1 560
R2 560
R3 330k
R4 10k
R5 330k
R6 10k
R7 330k
R8 10k
R9 330k
R10 10k
REG +5V
ROTOR 0
ROTOR 1
ROTOR 2
ROTOR 3
GND
PI ON/OFF 2
SR-40
1 PI ON/OFF SR
2 GND
3 ROTOR 0
4 ROTOR 1
5 ROTOR 2
6 ROTOR 3
7 REG +5V
TB

SR-40 BOARD

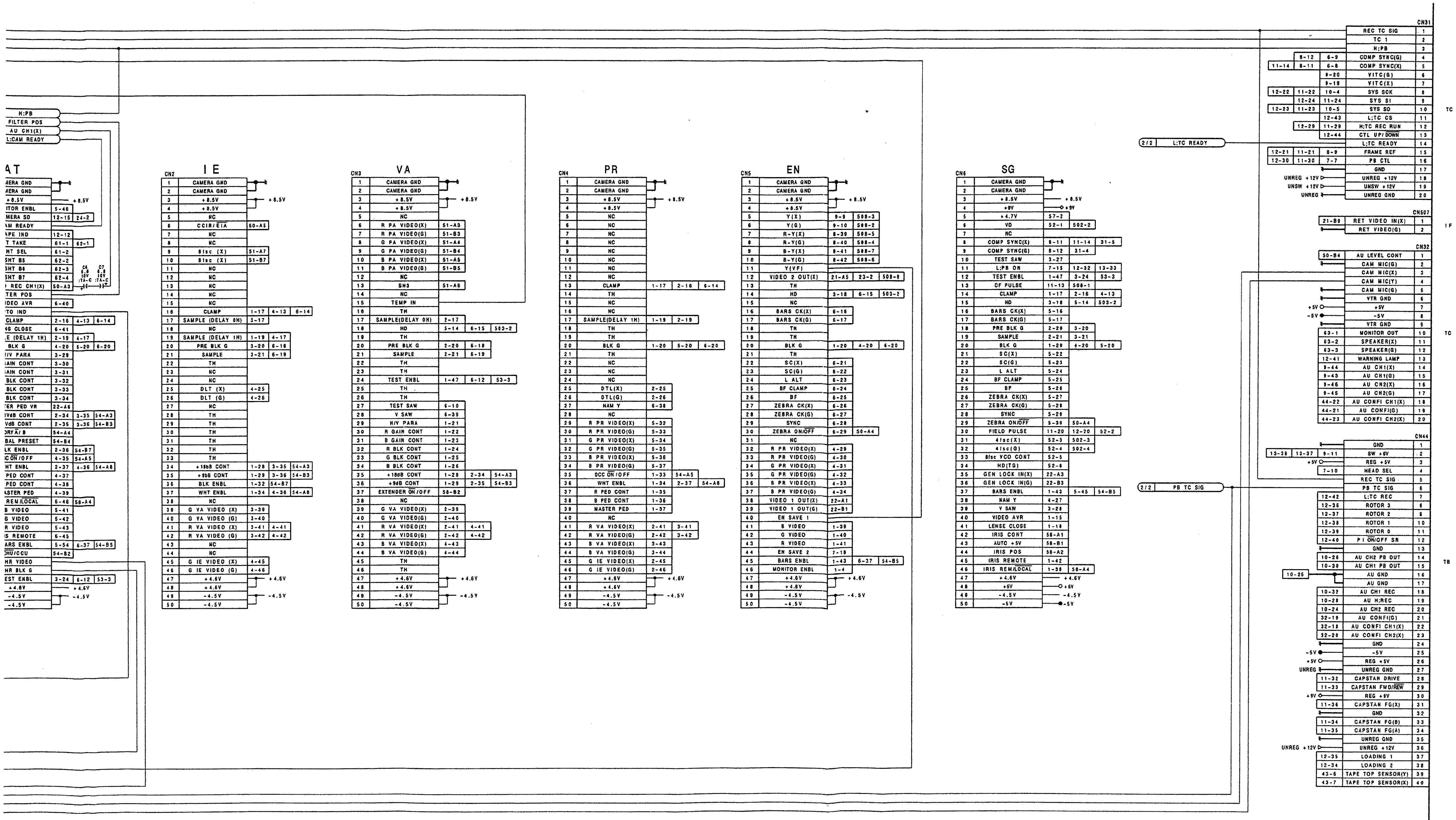
1-625-550-13

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

MB-317P(1/2);MOTHER BOARD


I F
CN501
1 EXT VTR S/S IN
2 EXT REC/TALLY IN
3 L:26P DETECT
4 EXT REC/TALLY OUT
5 EXT VTR S/S OUT
PB ADAPTOR
CN21
A1 20P Y RF(X) 7-33
B1 20P Y RF(G) 7-32
A2 20P AU PB CH1(X) 10-18 506-1
B2 20P AU PB(G) 10-17 506-2
A3 20P AU PB CH2(X) 10-21
B3 20P CONT 1 7-29
A4 NC
B4 NC
A5 VIDEO 2 OUT(X) 5-12 23-2 508-8
B5 VIDEO 2 OUT(G) 23-1 508-9
A6 20P C SW PLUSE(G) 7-34
B6 20P C SW PLUSE(X) 7-35
A7 NC
B7 NC
A8 20P Y SW PLUSE(G) 7-34
B8 20P Y SW PLUSE(X) 7-36
A9 20P CONT 2 7-37
B9 20P ADV SYNC 11-19 507-1
A10 20P C RF(G) 7-30
B10 20P C RF(X) 7-31
VIDEO IN/OUT TC IN/OUT VR-77
CN22
A1 VIDEO 1 OUT(X) 5-38
B1 VIDEO 1 OUT(G) 5-39
A2 EN SAVE 1-1
B2 GND
A3 GEN LOCK(X) 6-35
B3 GEN LOCK(G) 6-36
A4 TC IN(X)
B4 TC IN(G)
A5 TC OUT(X)
B5 TC OUT(G)
A6 MASTER PED VR 1-27
B6 +4.6V
+4.6V
VIDEO OUT-2
CN23
1 VIDEO 2 OUT(G) 21-B5 508-9
2 VIDEO 2 OUT(X) 5-12 21-A5 508-8
3 EN SAVE 1-2
REMOTE
CN24
1 UNREG GND
UNREG
2 CAMERA SD 1-5 12-15
3 UNREG +12V
UNREG +12V
4 L:VTR START/STOP 11-18 12-48 54-B8 58-A3
5 REC ALARM
MIC
CN25
1 CAMERA MIC(X)
2 CAMERA MIC(Y)
3 CAMERA MIC(G)
2/2 L;PB CONT
2/2 L;INTERFACE MODE
2/2 H;REC/TALLY OUT
I F
CN502
1 H;REC/TALLY OUT
2 VD 6-6 52-1
3 4fsc(X) 6-31 52-3
4 4fsc(G) 6-32 52-4
5 INT REC/TALLY OUT 12-11
6 CASSETTE IN/OUT
CASSETTE IN/OUT 2/2
I F
CN505
1 H;BATT IND OUT 50-B3
2 MARKER ON/OFF 50-A2
3 INT BATT IND IN 12-13
4 VTR STBY/SAVE SW 54-A6
5 L;REC ON 8-16 9-16 12-31
6 -4.5V
-4.5V
7 +4.6V
-4.6V
2/2 MARRER IN
R507 100k
Q202 2SK620
SL1
VF
CN50
A1 +9.3V(VF)
+9.3V
B1 UNREG GND(VF)
UNREG
A2 MARKER ON/OFF 505-2
B2 UNREG +12V
UNREG +12V
A3 AUDIO DISP ON/OFF 1-13
B3 H:BATT IND 505-1
A4 ZEBRA ON/OFF 5-30 6-29
B4 AU LEVEL CONT 32-1
A5 CCIR/EIA 2-6
B5 REC/ALARM
A6 VF VIDEO(X)
B6 VF VIDEO(G)
A7 VTR SAVE OUT
B7 NC
+9.3V
R304 1k
PAL ONLY
D403 1SS123
I F
CN506
1 AUDIO CH1(X) 10-18 21-A2
2 AUDIO(GND) 10-17 21-B2
IC402 CX-518
IC401 LM2903M (2/2)
IC401 LM2903M (1/2)
Q402 2SC4177
Q401 2SA1611
D401 1SS123
D402 1SS123
D4 1S2837
D3 1S2837
D2 1S2837
D1 1SS123
IC2 TC4053BFHB(3/3)
Q403 2SK94
Q201 2SB12
Q404 2SC4177
Q405 2SA1611
IC403 TC4S71F
IC405 TC4S81F
R514 510k
R513 1M
C407 0.1
Q4 2SC4177
Q3 2SC4177
+8.5V
+4.6V
IC1 AN6701S
TEMPERATURE DETECTOR
BUFFER
OFFSET TEMPERATURE ADJUSTMENT
IC61 TL062CPS (1/2)
IC61 TL062CPS (2/2)
IC62 TC4053BFHB (1/4)
IC62 TC4053BFHB (3/4)
IC62 TC4053BFHB (2/4)
D62 DA204U
D61 DA204U
IC63 RC4556MA (1/2)
IC63 RC4556MA (2/2)
D63 RD24M
D64 RD24M
IC404 TC4053BFHB (1/2)
IC404 TC4053BFHB (2/2)
Q151 2SC2713G
IC151 RC2041MD (1/2)
IC151 RC2041MD (2/2)
D151 1SS123
D152 1SS123
L151 8.2μH
L152 8.2μH
D1 2SB624
Q2 2SC4177
Q5 2SA1611
*1
Q1
Q2
Q5
Q6
IC4 TC4S69F
Q501 2SC2757
Q6 2SC4177
IC2 TC4053BFHB (1/3)
IC2 TC4053BFHB (2/3)
IC3 TC4S69F
L1 47μH
L2 47μH
+5V
-5V
+9V
PB VIDEO (X) 2/2
VF H;PB/L;CAM 2/2
2/2 H;PB
2/2 FILTER POS
2/2 AU CH1(X)
2/2 L;CAM READY
AT
CN1
1 CAMERA GND
2 CAMERA GND
3 +8.5V
+8.5V
4 MONITOR ENBL 5-46
5 CAMERA SD 12-15 24-2
6 L;CAM READY
7 TAPE IND 12-12
8 SHT TAKE 61-1 62-1
9 SHT SEL 61-2
10 SHT B5 62-2
11 SHT B6 62-3
12 SHT B7 62-4
13 AUDIO REC CH1(X) 50-A3
14 FILTER POS
15 VIDEO AVR 6-40
16 AUTO IND
17 CLAMP 2-16 4-13 6-14
18 LENS CLOSE 6-41
19 SAMPLE (DELAY 1H) 2-19 4-17
20 BLK G 4-20 5-20 6-20
21 H/V PARA 3-29
22 R GAIN CONT 3-30
23 B GAIN CONT 3-31
24 R BLK CONT 3-32
25 G BLK CONT 3-33
26 B BLK CONT 3-34
27 MASTER PED VR 22-A6
28 +18VdB CONT 2-34 3-35 54-A3
29 +9VdB CONT 2-35 3-36 54-B3
30 MEMORY A/B 54-A4
31 WHT BAL PRESET 54-B4
32 BLK ENBL 2-36 54-B7
33 DCC ON/OFF 4-35 54-A5
34 WHT ENBL 2-37 4-36 54-A8
35 R PED CONT 4-37
36 B PED CONT 4-38
37 MASTER PED 4-39
38 IRIS REM/LOCAL 6-46 58-A4
39 B VIDEO 5-41
40 G VIDEO 5-42
41 R VIDEO 5-43
42 IRIS REMOTE 6-45
43 BARS ENBL 5-54 6-37 54-B5
44 CHU/CCU 54-B2
45 CHR VIDEO
46 CHR BLK G
47 TEST ENBL 3-24 6-12 53-3
48 +4.6V
+4.6V
49 -4.5V
-4.5V
50 -4.5V
C6 6.8 10V :TA-C
C7 6.8 10V :TA-C
CN2

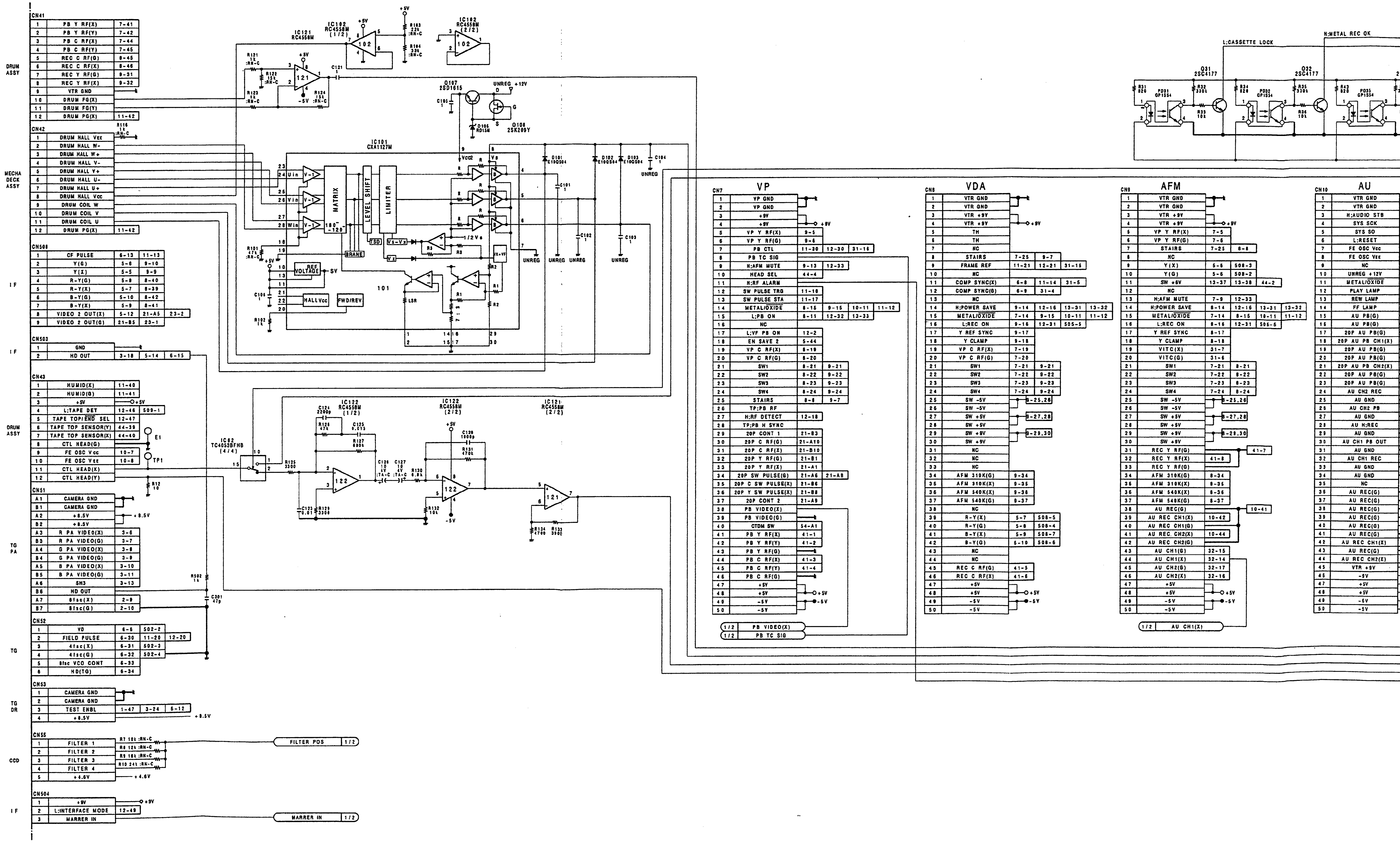
MARK	CHANGE INFORMATION	SERIAL NO.
*1	C158 1000P C159 47 10V C160 47 10V } ADDED	40361-

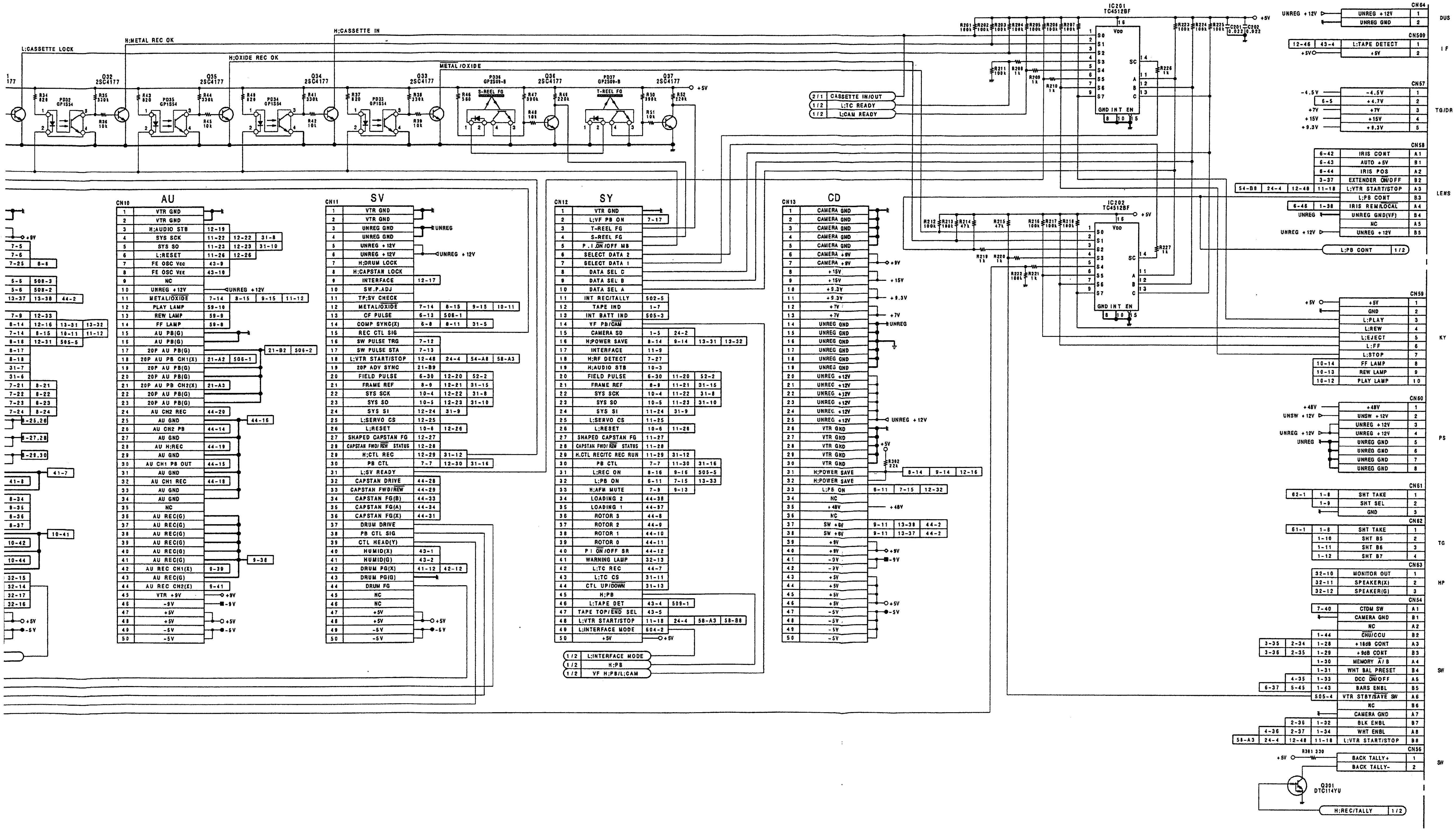

AT
CN2
IE
CN3
VA
CN4
PR
CN5
EN
CN6
SG
CN31
CN507
CN32
CN44
TC
IF
TC
TB
2/2 L:TC READY
2/2 PB TC SIG

MB-317P(1/2) BOARD

1-634-075-11
BVW-400AP (EK) ; 40001-

MB-317P(2/2);MOTHER BOARD

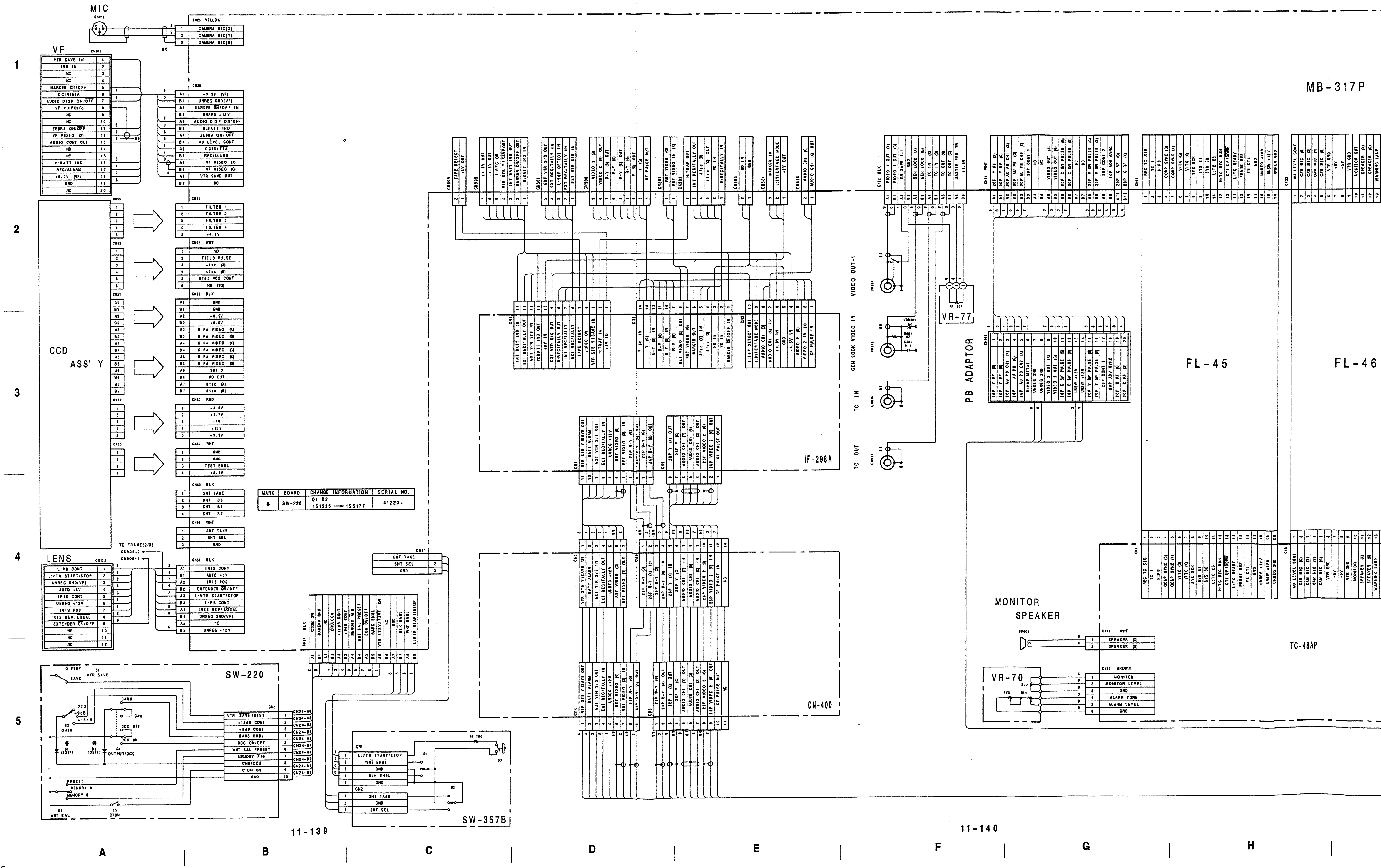

CN41
DRUM ASSY
CN42
MECHA DECK ASSY
CN508
IF
CN503
CN43
CN51
TG PA
CN52
TG
CN53
TG DR
CN55
CCD
CN504
IC101 CXA1127M
MATRIX
LEVEL SHIFT
LIMITER
IC121 RC4558M
IC102 RC4558M (1/2)
IC102 RC4558M (2/2)
IC122 RC4558M (1/2)
IC122 RC4558M (2/2)
IC121 RC4558M (2/2)
IC82 TC4053BFHB (4/4)
Q107 2SD1615
Q108 2SK209Y
Q31 2SC4177
Q32 2SC4177
UNREG
FILTER POS
MARRER IN
L:CASSETTE LOCK
H:METAL REC OK
CN7 VP
CN8 VDA
CN9 AFM
CN10 AU
PB VIDEO(X)
PB TC SIG
AU CH1(X)


L:CASSETTE LOCK
H:METAL REC OK
H:OXIDE REC OK
H:CASSETTE IN
METAL/OXIDE
Q32 2SC4177
Q35 2SC4177
Q34 2SC4177
Q33 2SC4177
Q36 2SC4177
Q37 2SC4177
PD32 GP1S54
PD35 GP1S54
PD34 GP1S54
PD33 GP1S54
PD36 GP2S09-8
PD37 GP2S09-8
S-REEL FG
T-REEL FG
+5V
CASSETTE IN/OUT
L:TC READY
L:CAM READY
IC201 TC4512BF
IC202 TC4512BF
VDD
GND INT EN
CN10 AU
CN11 SV
CN12 SY
CN13 CD
VTR GND
H:AUDIO STB
SYS SCK
SYS SO
L:RESET
FE OSC Vcc
FE OSC Vee
UNREG +12V
METAL/OXIDE
PLAY LAMP
REW LAMP
FF LAMP
AU PB(G)
20P AU PB(G)
20P AU PB CH1(X)
20P AU PB CH2(X)
AU CH2 REC
AU GND
AU CH2 PB
AU H:REC
AU CH1 PB OUT
AU CH1 REC
AU REC(G)
AU REC CH1(X)
AU REC CH2(X)
VTR +9V
-9V
+5V
-5V
UNREG GND
H:DRUM LOCK
H:CAPSTAN LOCK
INTERFACE
SW.P.ADJ
TP;SV CHECK
CF PULSE
COMP SYNC(X)
REC CTL SIG
SW PULSE TRG
SW PULSE STA
L:VTR START/STOP
20P ADV SYNC
FIELD PULSE
FRAME REF
SYS SCK
SYS SI
L:SERVO CS
L;RESET
SHAPED CAPSTAN FG
CAPSTAN FWD/REW STATUS
H;CTL REC
PB CTL
L;SV READY
CAPSTAN DRIVE
CAPSTAN FWD/REW
CAPSTAN FG(B)
CAPSTAN FG(A)
CAPSTAN FG(X)
DRUM DRIVE
PB CTL SIG
CTL HEAD(Y)
HUMID(X)
HUMID(G)
DRUM PG(X)
DRUM PG(G)
DRUM FG
NC
L;VF PB ON
T-REEL FG
S-REEL FG
P.I ON/OFF MB
SELECT DATA 2
SELECT DATA 1
DATA SEL C
DATA SEL B
DATA SEL A
INT REC/TALLY
TAPE IND
INT BATT IND
VF PB/CAM
CAMERA SO
H;POWER SAVE
INTERFACE
H;RF DETECT
H;AUDIO STB
H.CTL REC/TC REC RUN
L;REC ON
L;PB ON
H;AFM MUTE
LOADING 2
LOADING 1
ROTOR 3
ROTOR 2
ROTOR 1
ROTOR 0
P I ON/OFF SR
WARNING LAMP
L;TC REC
L;TC CS
CTL UP/DOWN
H;PB
L;TAPE DET
TAPE TOP/END SEL
L;VTR START/STOP
L;INTERFACE MODE
L:INTERFACE MODE
H:PB
VF H;PB/L;CAM
CAMERA GND
CAMERA +9V
+15V
+9.3V
+7V
UNREG GND
UNREG +12V
VTR GND
H;POWER SAVE
L;PB ON
+48V
SW +9V
-9V
CN64 UNREG +12V UNREG GND DUS
CN509 L;TAPE DETECT +5V IF
CN57 -4.5V +4.7V +7V +15V +9.3V TG/DR
CN58 IRIS CONT AUTO +5V IRIS POS EXTENDER ON/OFF L;VTR START/STOP L;PB CONT IRIS REM/LOCAL UNREG GND(VF) NC UNREG +12V LENS
L;PB CONT
CN59 +5V GND L;PLAY L;REW L;EJECT L;FF L;STOP FF LAMP REW LAMP PLAY LAMP KY
CN60 +48V UNSW +12V UNREG +12V UNREG GND PS
CN61 SHT TAKE SHT SEL GND
CN62 SHT TAKE SHT B5 SHT B6 SHT B7 TG
CN63 MONITOR OUT SPEAKER(X) SPEAKER(G) HP
CN54 CTDM SW CAMERA GND NC CHU/CCU +18dB CONT +9dB CONT MEMORY A/B WHT BAL PRESET DCC ON/OFF BARS ENBL VTR STBY/SAVE SW NC CAMERA GND BLK ENBL WHT ENBL L;VTR START/STOP SW
CN55 BACK TALLY+ BACK TALLY- SW
R301 330
Q301 DTC114YU
H:REC/TALLY

MB-317P(2/2)BOARD
1-634-075-11
BVW-400AP (EK);※40001-

FRAME(1/3) FRAME(1/3)

FRAME(1/3)

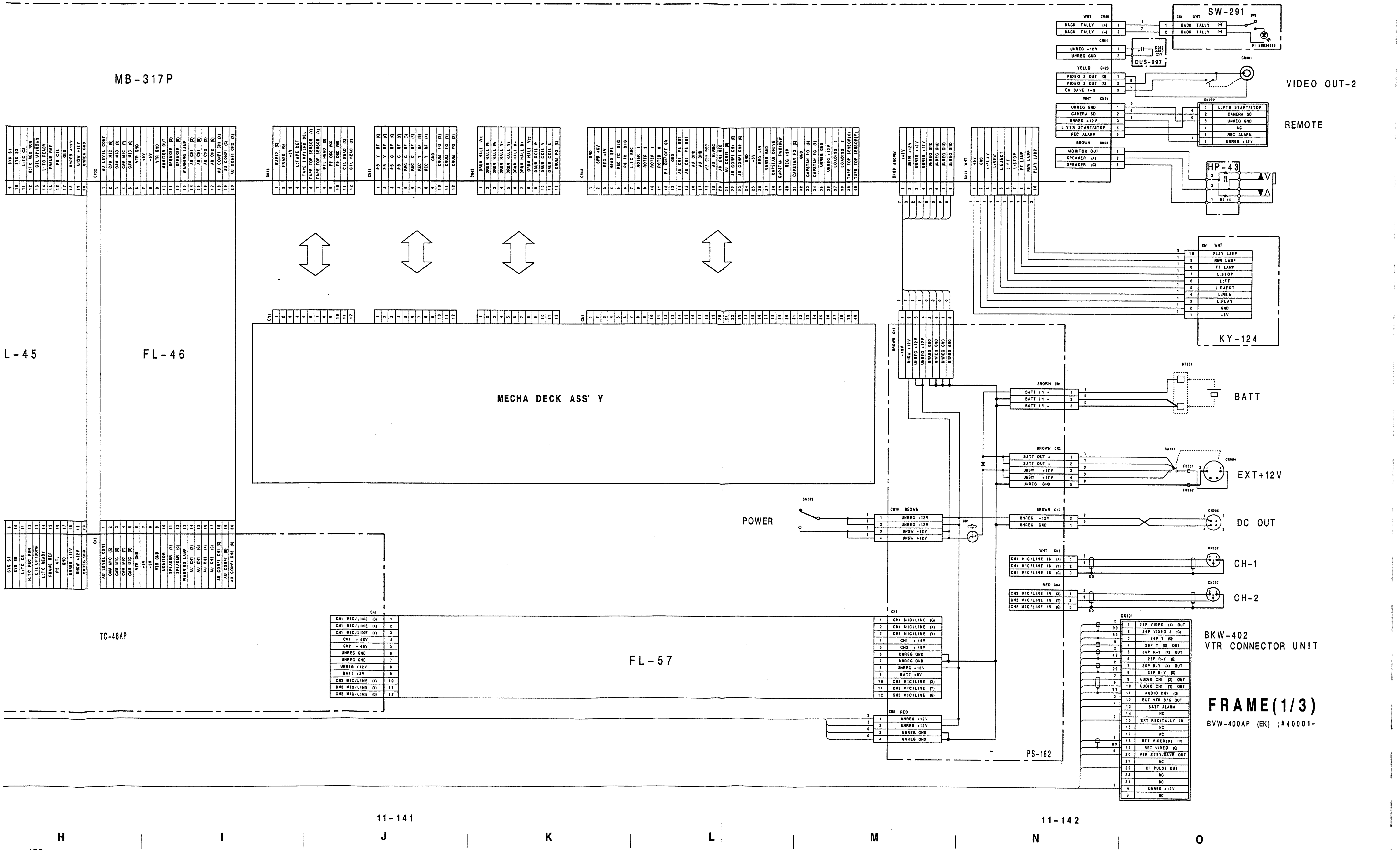

MIC
VF
VTR SAVE IN
IND IN
MARKER ON/OFF
CCIR/EIA
AUDIO DISP ON/OFF
VF VIDEO(G)
ZEBRA ON/OFF
VF VIDEO (X)
AUDIO CONT OUT
H:BATT IND
REC/ALARM
+9.3V (VF)
GND
NC
CAMERA MIC(X)
CAMERA MIC(Y)
CAMERA MIC(G)
CCD ASS' Y
LENS
L:PB CONT
L:VTR START/STOP
UNREG GND(VF)
AUTO +5V
IRIS CONT
UNREG +12V
IRIS POS
IRIS REM/LOCAL
EXTENDER ON/OFF
TO FRAME(2/3)
CN906-2
CN906-1
SW-220
STBY
VTR SAVE
SAVE
GAIN
BARS
CAM
DCC OFF
DCC ON
OUTPUT/DCC
PRESET
MEMORY A
MEMORY B
WHT BAL
CTDM
VTR SAVE/STBY
+18dB CONT
+9dB CONT
BARS ENBL
DCC ON/OFF
WHT BAL PRESET
MEMORY A/B
CHU/CCU
CTDM ON
SW-357B
SHT TAKE
SHT SEL
WHT ENBL
BLK ENBL
IF-298A
CN-400
VIDEO OUT-1
GEN LOCK VIDEO IN
TC IN
TC OUT
VR-77
PB ADAPTOR
MB-317P
FL-45
FL-46
MONITOR
SPEAKER
VR-70
MONITOR LEVEL
ALARM TONE
ALARM LEVEL
TC-48AP
1
2
3
4
5
A
B
C
D
E
F
G
H

MARK	BOARD	CHANGE INFORMATION	SERIAL NO.
*	SW-220	D1, D2 1S1555 → 1SS177	41223-

11-139

11-140

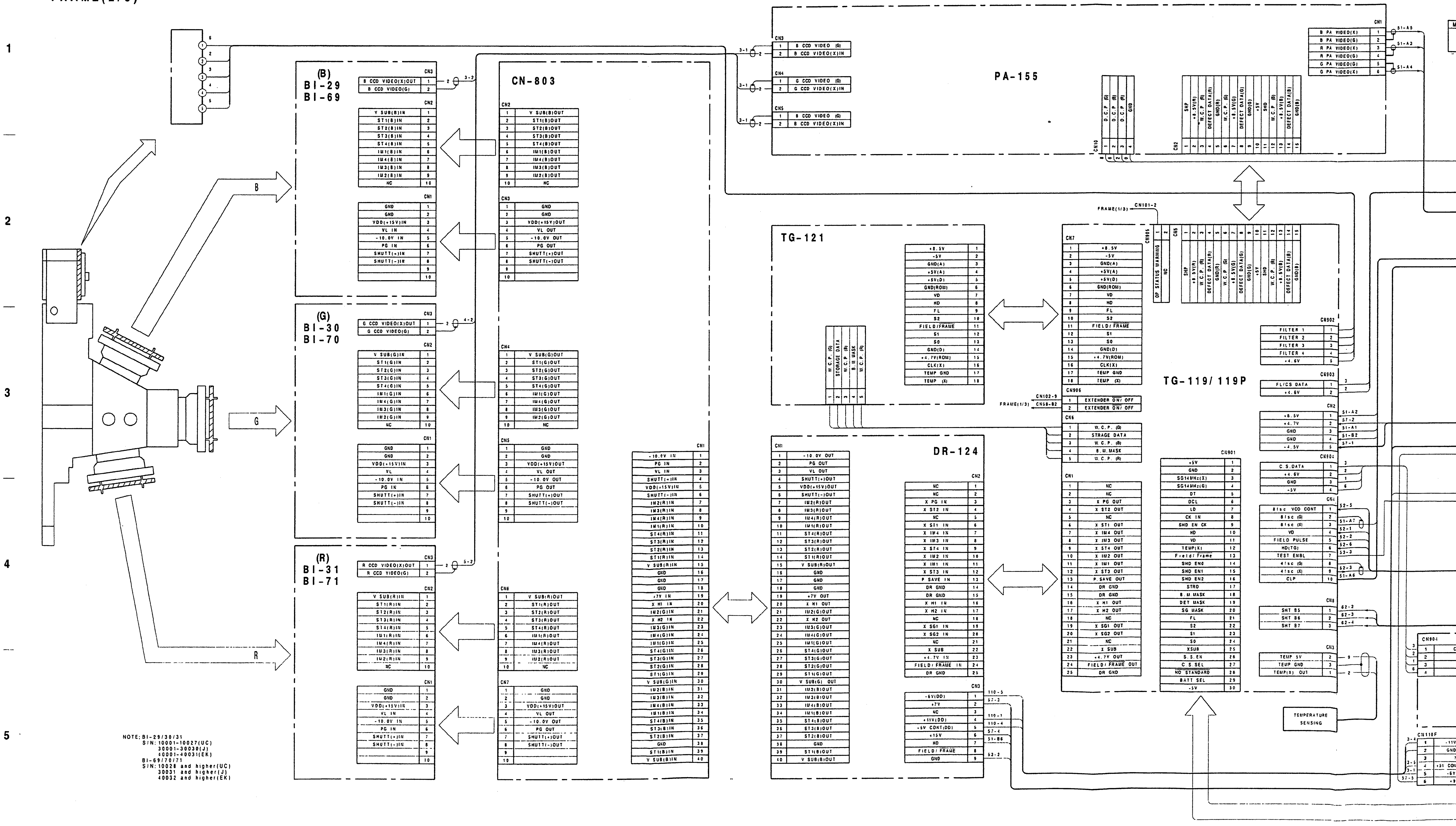
FRAME(1/3) FRAME(1/3)


MB-317P
L-45
FL-46
MECHA DECK ASS' Y
TC-48AP
FL-57
PS-162
SW-291
BACK TALLY (+)
BACK TALLY (-)
DUS-297
UNREG +12V
UNREG GND
VIDEO 2 OUT (G)
VIDEO 2 OUT (X)
EN SAVE 1-2
VIDEO OUT-2
UNREG GND
CAMERA SD
UNREG +12V
L:VTR START/STOP
REC ALARM
REMOTE
MONITOR OUT
SPEAKER (X)
SPEAKER (G)
HP-43
PLAY LAMP
REW LAMP
FF LAMP
L:STOP
L:FF
L:EJECT
L:REW
L:PLAY
GND
+5V
KY-124
BATT IN +
BATT IN -
BATT
BATT OUT +
UNSW +12V
UNREG GND
EXT+12V
POWER
UNREG +12V
UNSW +12V
DC OUT
CH1 MIC/LINE IN (X)
CH1 MIC/LINE IN (Y)
CH1 MIC/LINE IN (G)
CH-1
CH2 MIC/LINE IN (X)
CH2 MIC/LINE IN (Y)
CH2 MIC/LINE IN (G)
CH-2
CH1 MIC/LINE (G)
CH1 MIC/LINE (X)
CH1 MIC/LINE (Y)
CH1 +48V
CH2 +48V
UNREG GND
UNREG +12V
BATT +5V
CH2 MIC/LINE (X)
CH2 MIC/LINE (Y)
CH2 MIC/LINE (G)
26P VIDEO (X) OUT
26P VIDEO 2 (G)
26P Y (G)
26P Y (X) OUT
26P R-Y (X) OUT
26P R-Y (G)
26P B-Y (X) OUT
26P B-Y (G)
AUDIO CH1 (X) OUT
AUDIO CH1 (Y) OUT
AUDIO CH1 (G)
EXT VTR S/S OUT
BATT ALARM
NC
EXT REC/TALLY IN
RET VIDEO(X) IN
RET VIDEO (G)
VTR STBY/SAVE OUT
CF PULSE OUT
BKW-402
VTR CONNECTOR UNIT
11-141
11-142
H
I
J
K
L
M
N
O

FRAME(1/3)

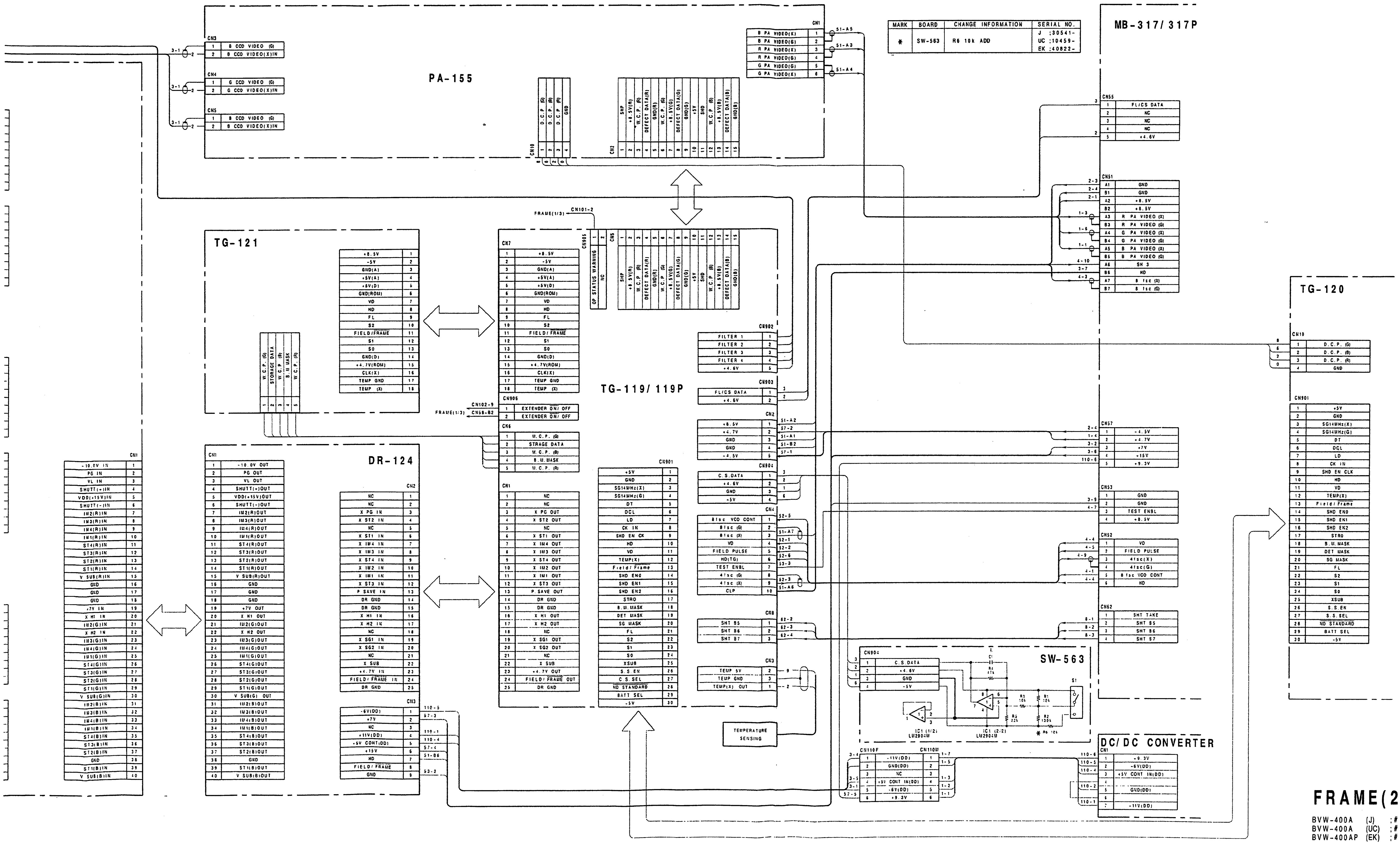
BVW-400AP (EK) ;#40001-

FRAME(2/3)


1
2
3
4
5
B
G
R
(B)
BI-29
BI-69
(G)
BI-30
BI-70
(R)
BI-31
BI-71
CN-803
PA-155
TG-121
TG-119/119P
DR-124
FRAME(1/3) CN101-2
FRAME(1/3) CN102-9
FRAME(1/3) CN58-B2
TEMPERATURE SENSING
B CCD VIDEO(X)OUT
B CCD VIDEO(G)
G CCD VIDEO(X)OUT
G CCD VIDEO(G)
R CCD VIDEO(X)OUT
R CCD VIDEO(G)
V SUB(B)IN
GND
VDD(+15V)IN
VL IN
-10.0V IN
PG IN
SHUTT(+)IN
SHUTT(-)IN
NC
V SUB(B)OUT
VDD(+15V)OUT
VL OUT
-10.0V OUT
PG OUT
SHUTT(+)OUT
SHUTT(-)OUT
B PA VIDEO(X)
B PA VIDEO(G)
R PA VIDEO(X)
R PA VIDEO(G)
G PA VIDEO(G)
G PA VIDEO(X)
EXTENDER ON/OFF
FILTER 1
FILTER 2
FILTER 3
FILTER 4
FL/CS DATA
C.S.DATA
TEMP 5V
TEMP GND
TEMP(X) OUT

NOTE; BI-29/30/31
S/N: 10001-10027(UC)
30001-30030(J)
40001-40031(EK)
BI-69/70/71
S/N: 10028 and higher(UC)
30031 and higher(J)
40032 and higher(EK)

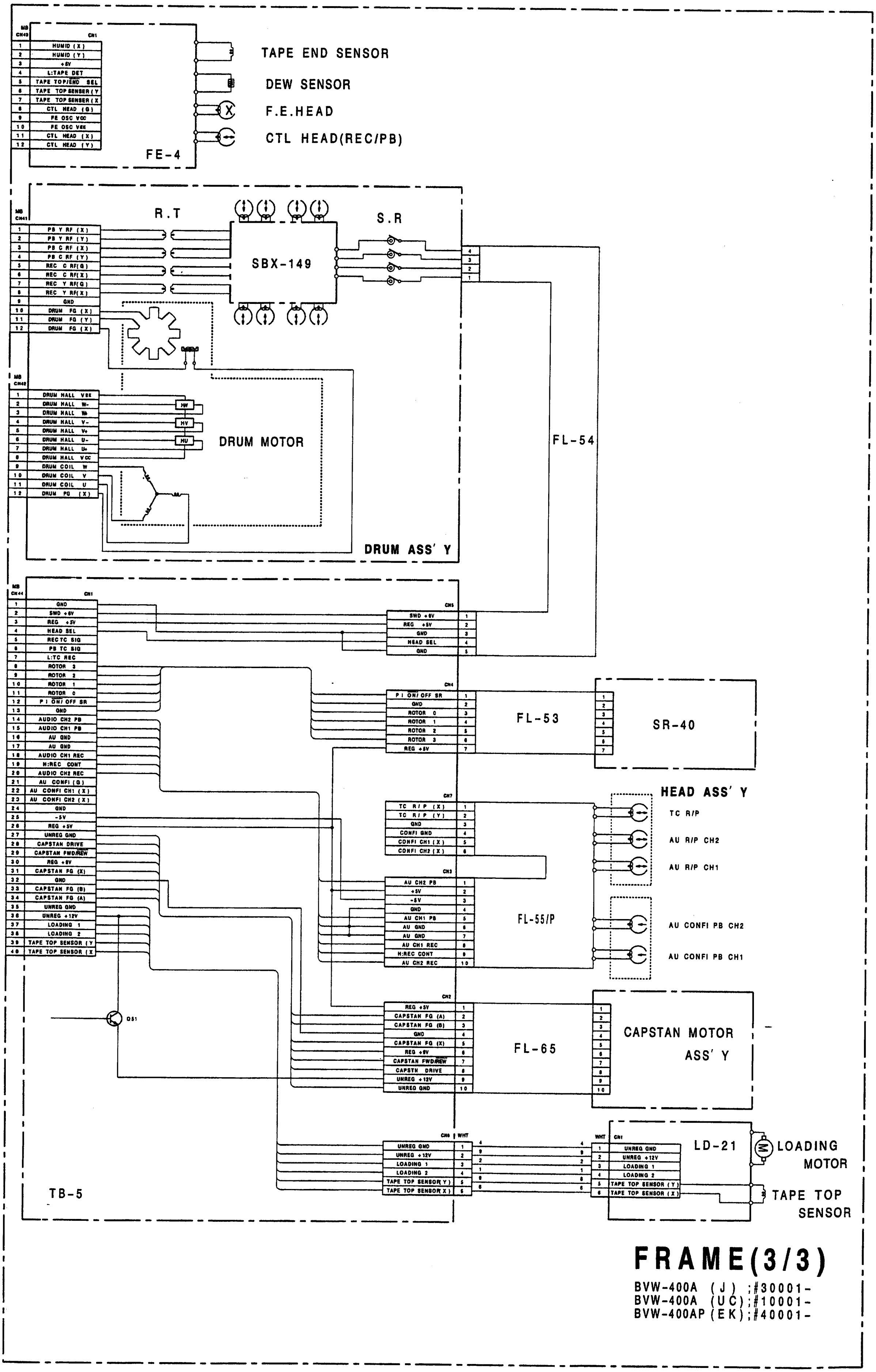
MARK	BOARD	CHANGE INFORMATION	SERIAL NO.
*	SW-563	R6 10k ADD	J ;30541- UC ;10459- EK ;40822-


PA-155
CN3
CN4
CN5
CN10
CN2
CN1
B CCD VIDEO (G)
B CCD VIDEO(X)IN
G CCD VIDEO (G)
G CCD VIDEO(X)IN
R CCD VIDEO (G)
R CCD VIDEO(X)IN
B PA VIDEO(X)
B PA VIDEO(G)
R PA VIDEO(X)
R PA VIDEO(G)
G PA VIDEO(X)
G PA VIDEO(G)
D.C.P. (G)
D.C.P. (B)
D.C.P. (R)
GND
SHP
W.C.P. (R)
DEFECT DATA(R)
W.C.P. (G)
DEFECT DATA(G)
W.C.P. (B)
DEFECT DATA(B)
MB-317/317P
CN55
FL/CS DATA
CN51
SH 3
HD
8 fsc (X)
8 fsc (G)
TG-120
CN19
CN901
TG-121
TG-119/119P
CN7
CN906
EXTENDER ON/OFF
CN6
W.C.P. (G)
STRAGE DATA
W.C.P. (B)
B.U. MASK
W.C.P. (R)
OP STATUS WARNING
CN902
FILTER 1
FILTER 2
FILTER 3
FILTER 4
CN903
CN904
C.S.DATA
CN4
8fsc VCO CONT
FIELD PULSE
HD(TG)
TEST ENBL
CLP
CN8
SHT B5
SHT B6
SHT B7
CN3
TEMP 5V
TEMP GND
TEMP(X) OUT
TEMPERATURE SENSING
DR-124
CN1
CN2
CN3
FRAME(1/3) CN101-2
FRAME(1/3) CN102-9
FRAME(1/3) CN8-B2
CN57
CN53
CN52
CN62
SHT TAKE
SW-563
CN904
S1
IC1 (1/2) LM2904M
IC1 (2/2) LM2904M
DC/DC CONVERTER
CN1
CN110F
CN110M
+11V(DD)
GND(DD)
+5V CONT IN(DD)
-6V(DD)
+9.3V
-11V(DD)

FRAME(2/3)

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

FRAME(3/3)

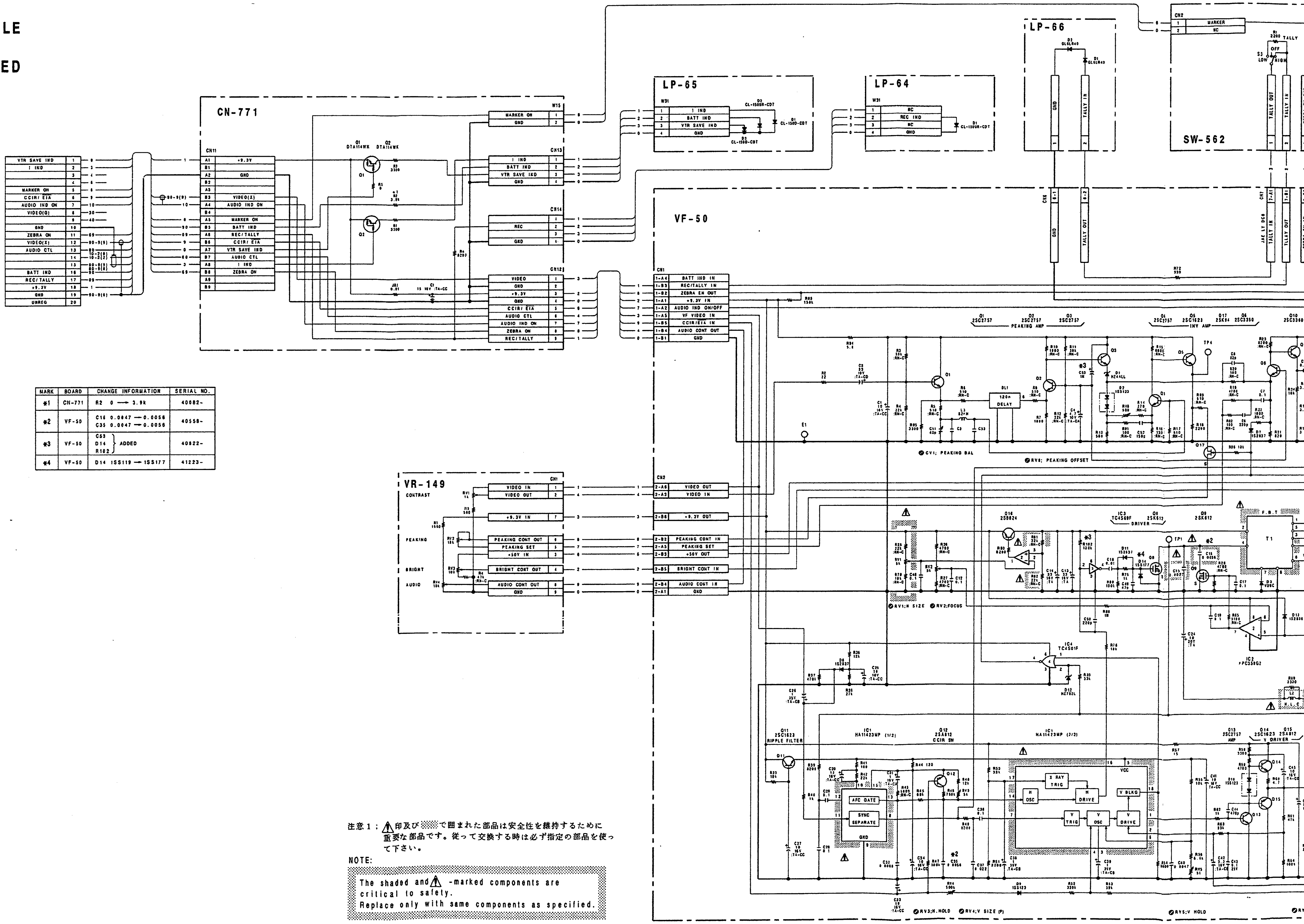

MB CN43
CN1
1 HUMID (X)
2 HUMID (Y)
3 +5V
4 L:TAPE DET
5 TAPE TOP/END SEL
6 TAPE TOP SENSER (Y
7 TAPE TOP SENSER (X
8 CTL HEAD (G)
9 FE OSC VCC
10 FE OSC VEE
11 CTL HEAD (X)
12 CTL HEAD (Y)
FE-4
TAPE END SENSOR
DEW SENSOR
F.E.HEAD
CTL HEAD(REC/PB)
MB CN41
1 PB Y RF (X)
2 PB Y RF (Y)
3 PB C RF (X)
4 PB C RF (Y)
5 REC C RF(G)
6 REC C RF(X)
7 REC Y RF(G)
8 REC Y RF(X)
9 GND
10 DRUM FG (X)
11 DRUM FG (Y)
12 DRUM FG (X)
R.T
SBX-149
S.R
MB CN42
1 DRUM HALL VEE
2 DRUM HALL W-
3 DRUM HALL W+
4 DRUM HALL V-
5 DRUM HALL V+
6 DRUM HALL U-
7 DRUM HALL U+
8 DRUM HALL VCC
9 DRUM COIL W
10 DRUM COIL V
11 DRUM COIL U
12 DRUM PG (X)
HW
HV
HU
DRUM MOTOR
DRUM ASS' Y
FL-54
MB CN44
CN1
1 GND
2 SWD +5V
3 REG +5V
4 HEAD SEL
5 REC TC SIG
6 PB TC SIG
7 L:TC REC
8 ROTOR 3
9 ROTOR 2
10 ROTOR 1
11 ROTOR 0
12 P I ON/ OFF SR
13 GND
14 AUDIO CH2 PB
15 AUDIO CH1 PB
16 AU GND
17 AU GND
18 AUDIO CH1 REC
19 H:REC CONT
20 AUDIO CH2 REC
21 AU CONFI (G)
22 AU CONFI CH1 (X)
23 AU CONFI CH2 (X)
24 GND
25 -5V
26 REG +5V
27 UNREG GND
28 CAPSTAN DRIVE
29 CAPSTAN FWD/REW
30 REG +9V
31 CAPSTAN FG (X)
32 GND
33 CAPSTAN FG (B)
34 CAPSTAN FG (A)
35 UNREG GND
36 UNREG +12V
37 LOADING 1
38 LOADING 2
39 TAPE TOP SENSOR (Y
40 TAPE TOP SENSOR (X
CN5
SWD +5V 1
REG +5V 2
GND 3
HEAD SEL 4
GND 5
CN4
P I ON/ OFF SR 1
GND 2
ROTOR 0 3
ROTOR 1 4
ROTOR 2 5
ROTOR 3 6
REG +5V 7
FL-53
SR-40
CN7
TC R/P (X) 1
TC R/P (Y) 2
GND 3
CONFI GND 4
CONFI CH1 (X) 5
CONFI CH2 (X) 6
CN3
AU CH2 PB 1
+5V 2
-5V 3
GND 4
AU CH1 PB 5
AU GND 6
AU GND 7
AU CH1 REC 8
H:REC CONT 9
AU CH2 REC 10
FL-55/P
HEAD ASS' Y
TC R/P
AU R/P CH2
AU R/P CH1
AU CONFI PB CH2
AU CONFI PB CH1
CN2
REG +5V 1
CAPSTAN FG (A) 2
CAPSTAN FG (B) 3
GND 4
CAPSTAN FG (X) 5
REG +9V 6
CAPSTAN FWD/REW 7
CAPSTN DRIVE 8
UNREG +12V 9
UNREG GND 10
FL-65
CAPSTAN MOTOR ASS' Y
Q51
CN6 WHT
UNREG GND 1
UNREG +12V 2
LOADING 1 3
LOADING 2 4
TAPE TOP SENSOR(Y) 5
TAPE TOP SENSOR(X) 6
WHT CN1
UNREG GND
UNREG +12V
LOADING 1
LOADING 2
TAPE TOP SENSOR (Y)
TAPE TOP SENSOR (X)
LD-21
M
LOADING MOTOR
TAPE TOP SENSOR
TB-5
1
2
3
4
5
A
B
C
D

FRAME(3/3)

BVW-400A (J) ;#30001-
BVW-400A (UC);#10001-
BVW-400AP (EK);#40001-

VIEWFINDER

CN-771;CONNECTOR FOR VF CABLE
LP-64;REC LED
LP-65;BATT/TALLY, VTR SAVE LED
LP-66;FRONT TALLY LED
VR-149;VOLUME CONTROL
SW-562;SWITCH BOARD
VF-50;VIEWFINDER

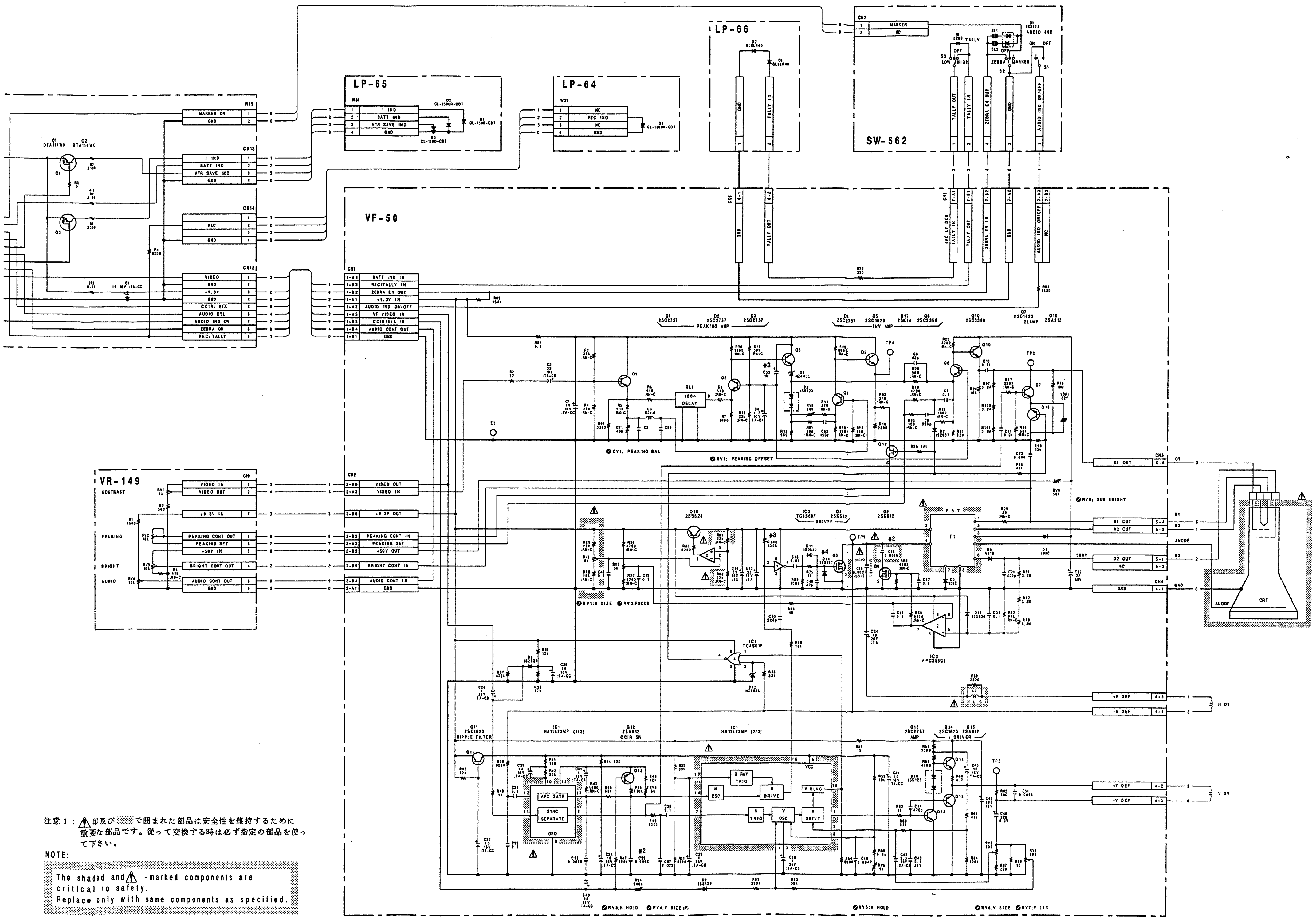

CN-771
LP-65
LP-64
LP-66
SW-562
VF-50
VR-149
CONTRAST
PEAKING
BRIGHT
AUDIO
VTR SAVE IND
I IND
MARKER ON
CCIR/EIA
AUDIO IND ON
VIDEO(Z)
GND
ZEBRA ON
VIDEO(X)
AUDIO CTL
BATT IND
REC/TALLY
+9.3V
UNREG
REC IND
VIDEO IN
VIDEO OUT
+9.3V IN
PEAKING CONT OUT
PEAKING SET
+50V IN
BRIGHT CONT OUT
AUDIO CONT OUT
ZEBRA EN OUT
AUDIO IND ON/OFF
VF VIDEO IN
CCIR/EIA IN
AUDIO CONT OUT
MARKER
TALLY
OFF
LOW HIGH
TALLY OUT
TALLY IN
PEAKING AMP
INV AMP
DELAY
RV1; PEAKING BAL
RV6; PEAKING OFFSET
RV1;H SIZE
RV2;FOCUS
DRIVER
F.B.T
T1
RIPPLE FILTER
CCIR SW
V DRIVER
AFC GATE
SYNC SEPARATE
X RAY TRIG
H OSC
H DRIVE
V BLKG
V TRIG
V OSC
V DRIVE
VCC
GND
RV3;H.HOLD
RV4;V SIZE (P)
RV5;V HOLD

MARK	BOARD	CHANGE INFORMATION	SERIAL NO.
*1	CN-771	R2 0 → 3.9k	40082-
*2	VF-50	C16 0.0047 → 0.0056 C35 0.0047 → 0.0056	40558-
*3	VF-50	C53 D14 } ADDED R102	40822-
*4	VF-50	D14 1SS119 → 1SS177	41223-

注意１；⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

NOTE:

The shaded and ⚠ -marked components are critical to safety.
Replace only with same components as specified.


LP-66
SW-562
LP-65
LP-64
VF-50
VR-149
CONTRAST
PEAKING
BRIGHT
AUDIO
MARKER ON
GND
I IND
BATT IND
VTR SAVE IND
REC
VIDEO
+9.3V
CCIR/EIA
AUDIO CTL
AUDIO IND ON
ZEBRA ON
REC/TALLY
TALLY OUT
ZEBRA EN OUT
AUDIO IND ON/OFF
MARKER
TALLY
AUDIO IND
ZEBRA
PEAKING AMP
INV AMP
CLAMP
DELAY
CV1: PEAKING BAL
RV6: PEAKING OFFSET
RV9: SUB BRIGHT
RV1: H SIZE
RV2: FOCUS
F.B.T
T1
G1 OUT
H1 OUT
H2 OUT
ANODE
G2 OUT
CRT
RIPPLE FILTER
CCIR SW
AFC GATE
SYNC SEPARATE
X RAY TRIG
H OSC
H DRIVE
V BLKG
V TRIG
V OSC
V DRIVE
V DRIVER
+H DEF
-H DEF
H DY
+V DEF
-V DEF
V DY
RV3: H.HOLD
RV4: V SIZE (P)
RV5: V HOLD
RV6: V SIZE
RV7: V LIN

注意１；⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

NOTE:

The shaded and ⚠ -marked components are critical to safety.
Replace only with same components as specified.

VF-50 BOARD
1-643-703-11

SW-562 BOARD
1-643-709-11

VR-149 BOARD
1-643-708-11

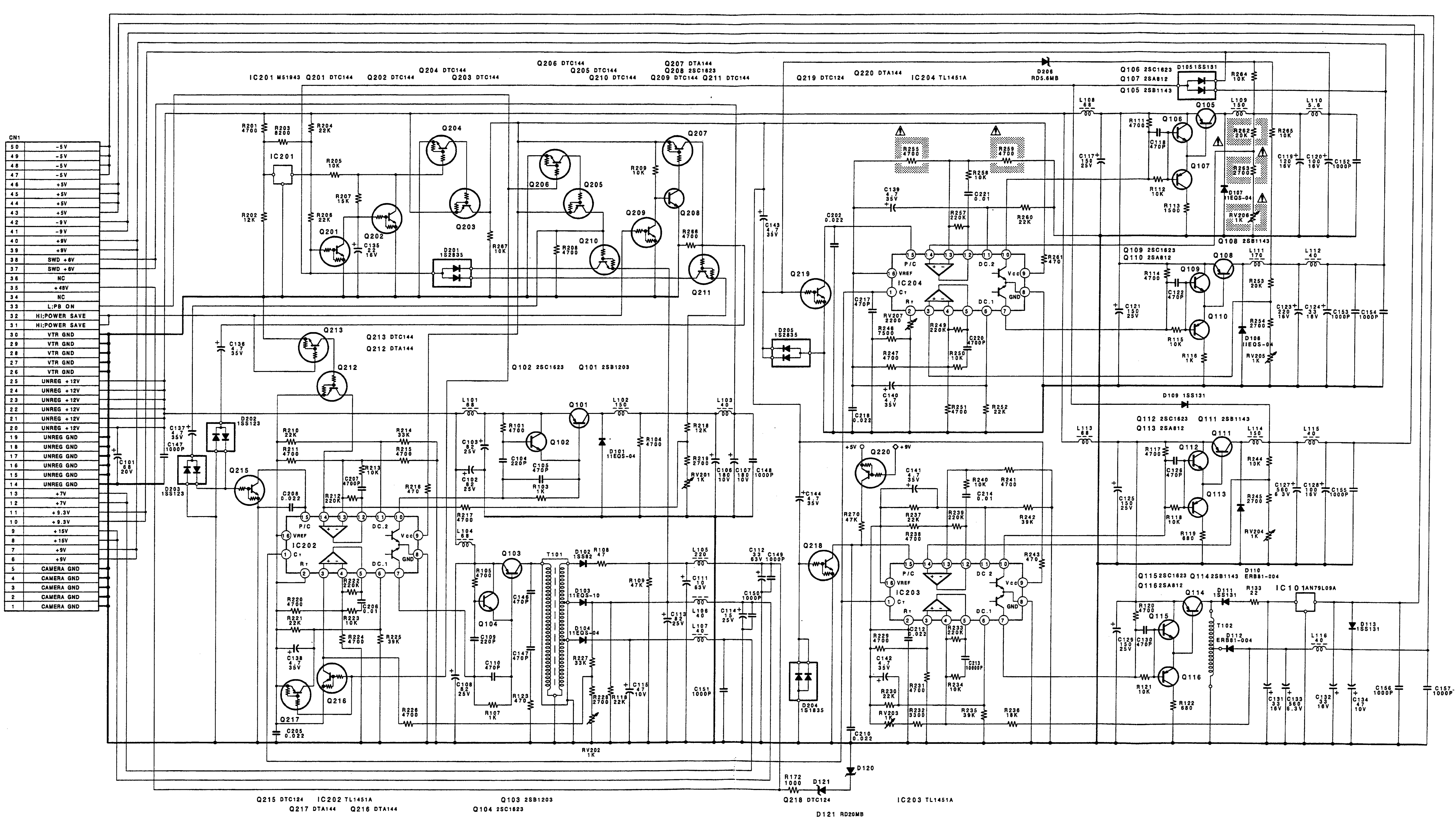
LP-64 BOARD
1-643-704-11

LP-65 BOARD
1-643-705-11

LP-66 BOARD
1-643-706-11

CN-771 BOARD
1-643-707-11
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

CD-89:DC-DC CONVERTER


1
2
3
4
5
CN1
50 -5V
49 -5V
48 -5V
47 -5V
46 +5V
45 +5V
44 +5V
43 +5V
42 -9V
41 -9V
40 +9V
39 +9V
38 SWD +6V
37 SWD +6V
36 NC
35 +48V
34 NC
33 L;PB ON
32 HI;POWER SAVE
31 HI;POWER SAVE
30 VTR GND
29 VTR GND
28 VTR GND
27 VTR GND
26 VTR GND
25 UNREG +12V
24 UNREG +12V
23 UNREG +12V
22 UNREG +12V
21 UNREG +12V
20 UNREG +12V
19 UNREG GND
18 UNREG GND
17 UNREG GND
16 UNREG GND
15 UNREG GND
14 UNREG GND
13 +7V
12 +7V
11 +9.3V
10 +9.3V
9 +15V
8 +15V
7 +9V
6 +9V
5 CAMERA GND
4 CAMERA GND
3 CAMERA GND
2 CAMERA GND
1 CAMERA GND
IC201 M51943 Q201 DTC144 Q202 DTC144
Q204 DTC144
Q203 DTC144
Q206 DTC144
Q205 DTC144
Q210 DTC144
Q207 DTA144
Q208 2SC1623
Q209 DTC144 Q211 DTC144
Q219 DTC124
Q220 DTA144
IC204 TL1451A
D206 RD5.6MB
Q106 2SC1623
Q107 2SA812
Q105 2SB1143
D105 1SS131
Q213 DTC144
Q212 DTA144
Q102 2SC1623 Q101 2SB1203
Q109 2SC1623
Q110 2SA812
Q108 2SB1143
D109 1SS131
Q112 2SC1623 Q111 2SB1143
Q113 2SA812
Q115 2SC1623 Q114 2SB1143
Q116 2SA812
D110 ERB81-004
IC101 AN79L09A
T101
T102
IC202
IC203
IC204
D201 1S2835
D202 1SS123
D203 1SS123
D205 1S2835
D204 1S1835
D101 11EQS-04
D102 1SS82
D103 11EQS-10
D104 11EQS-04
D107 11EQS-04
D108 11EQS-04
D111 1SS131
D112 ERB81-004
D113 1SS131
D120
D121
+5V
+9V
P/C
VREF
CT
RT
DC.1
DC.2
Vcc
GND
Q215 DTC124 IC202 TL1451A
Q217 DTA144 Q216 DTA144
Q103 2SB1203
Q104 2SC1623
Q218 DTC124
IC203 TL1451A
D121 RD20MB
D120 RD20MB

注意１；⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

NOTE:

The shaded and ⚠ -marked components are critical to safety.
Replace only with same components as specified.

CD-89 BOARD

1-464-995-41
BVW-400AP (EK) ;♯40001-

A | B | C | D | E | F | G | H

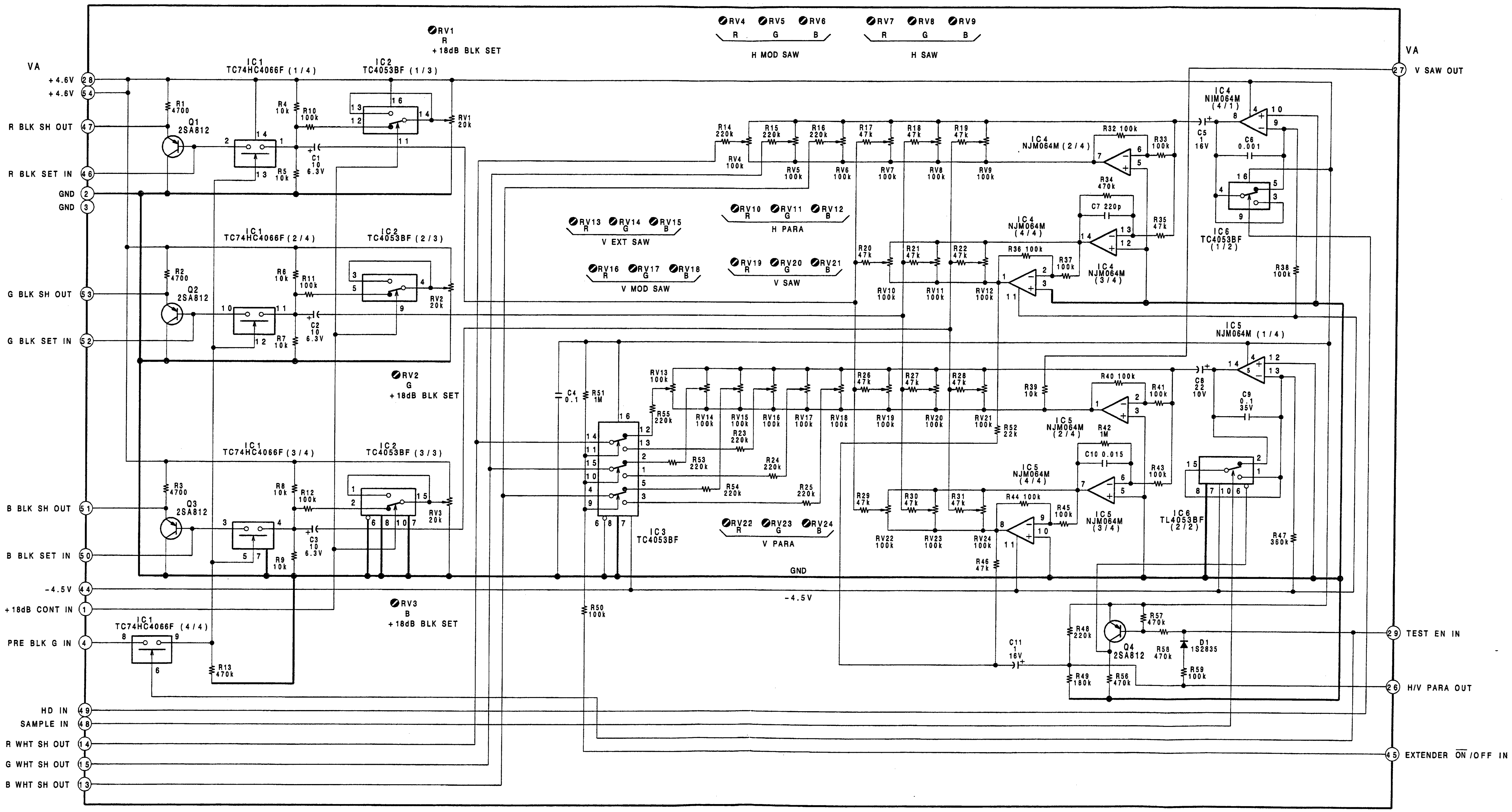
1

2

3

4

5


VA
+4.6V 28
+4.6V 54
R BLK SH OUT 47
R BLK SET IN 46
GND 2
GND 3
G BLK SH OUT 53
G BLK SET IN 52
B BLK SH OUT 51
B BLK SET IN 50
-4.5V 44
+18dB CONT IN 1
PRE BLK G IN 4
HD IN 49
SAMPLE IN 48
R WHT SH OUT 14
G WHT SH OUT 15
B WHT SH OUT 13
VA
27 V SAW OUT
29 TEST EN IN
26 H/V PARA OUT
45 EXTENDER ON/OFF IN
IC1 TC74HC4066F (1/4)
IC1 TC74HC4066F (2/4)
IC1 TC74HC4066F (3/4)
IC1 TC74HC4066F (4/4)
IC2 TC4053BF (1/3)
IC2 TC4053BF (2/3)
IC2 TC4053BF (3/3)
IC3 TC4053BF
IC4 NJM064M (4/1)
IC4 NJM064M (2/4)
IC4 NJM064M (4/4)
IC4 NJM064M (3/4)
IC5 NJM064M (1/4)
IC5 NJM064M (2/4)
IC5 NJM064M (4/4)
IC5 NJM064M (3/4)
IC6 TC4053BF (1/2)
IC6 TL4053BF (2/2)
Q1 2SA812
Q2 2SA812
Q3 2SA812
Q4 2SA812
D1 1S2835
RV1 R +18dB BLK SET
RV2 G +18dB BLK SET
RV3 B +18dB BLK SET
RV4 RV5 RV6 R G B H MOD SAW
RV7 RV8 RV9 R G B H SAW
RV10 RV11 RV12 R G B H PARA
RV13 RV14 RV15 R G B V EXT SAW
RV16 RV17 RV18 R G B V MOD SAW
RV19 RV20 RV21 R G B V SAW
RV22 RV23 RV24 R G B V PARA
GND
-4.5V

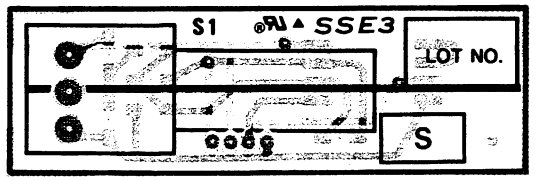
BH-1263 BOARD

BVW-400A (J) ;#30001-
BVW-400A (UC);#10001-
BVW-400AP (EK);#40001-

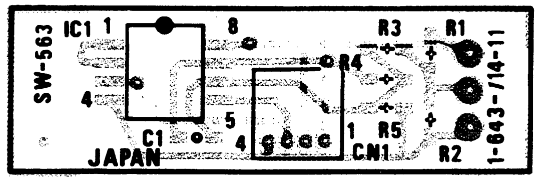
A | B | C | D | E | F | G | H

SECTION 12
PRINTED WIRING BOARDS

S/N;40001 through 40181


S1
SSE3
LOT NO.
S

SW-563 -COMPONENT SIDE-
1-643-714-11
BVW-400A
BVW-400AP

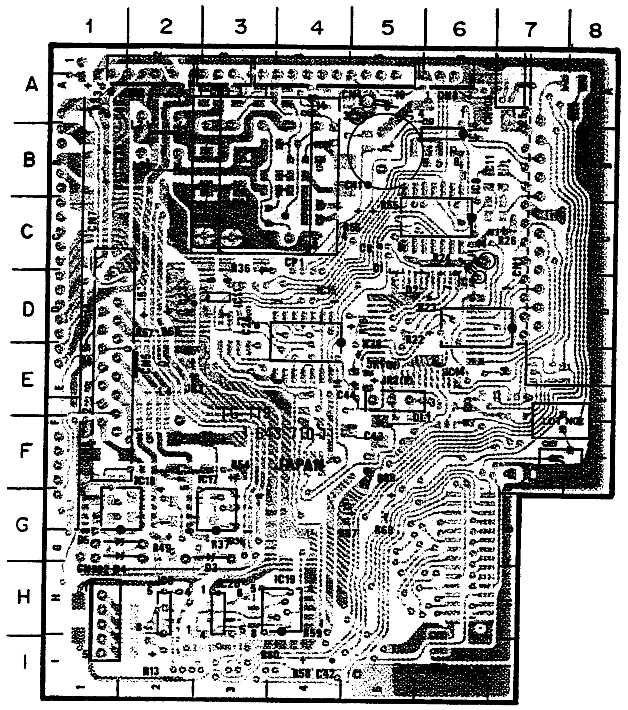

SW-563
IC1 1
8
R3
R1
4
R4
5
C1
JAPAN
4
1 R5
CN1
R2
1-643-714-11

SW-563 -SOLDERING SIDE-
1-643-714-11
BVW-400A
BVW-400AP

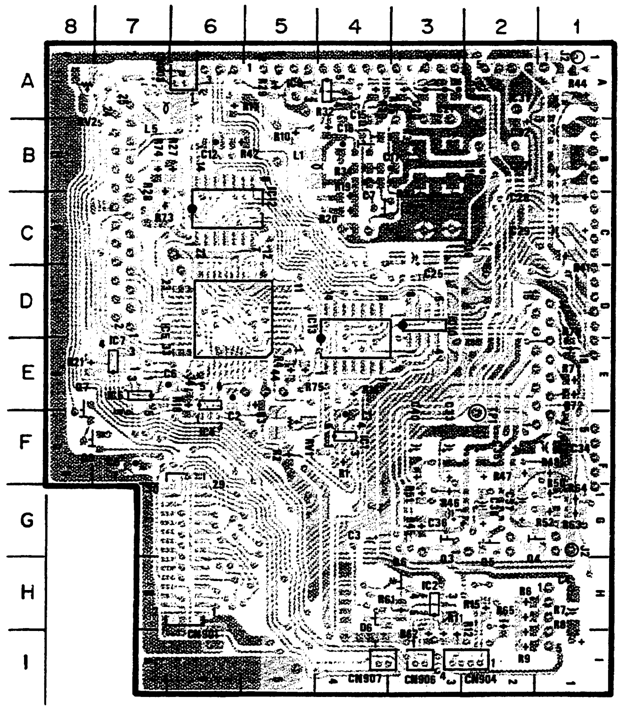
S/N;40001 through 40360

TG-119P;TIMING GENERATOR

CN1	C-7	Q1	B-4
CN2	A-2	Q2	C-3
CN3	A-3	Q3	H-3
CN4	A-4	Q4	H-2
CN5	E-2	Q5	H-2
CN6	F-1	Q6	H-3
CN7	C-1	Q7	E-8
CN8	A-6	Q8	F-8
CN901	H-6	RV1	F-5
CN902	H-1	RV2	B-8
CN903	A-7		
CN904	A-2	TP1	F-2
CN905	A-6		
CN906	A-3		
CN907	A-4		
CP1	C-4		
DL1	F-5		
D1	C-5		
D2	D-5		
D3	H-3		
D4	H-2		
D5	G-1		
D6	H-4		
IC1	F-4		
IC2	H-3		
IC3	H-2		
IC4	F-6		
IC5	F-7		
IC6	E-7		
IC7	E-7		
IC9	A-5		
IC10	D-3		
IC11	D-3		
IC12	G-5		
IC13	D-5		
IC14	E-6		
IC15	D-4		
IC16	B-6		
IC17	F-3		
IC18	F-2		
IC19	H-4		
IC20	H-3		
JR1	E-5		
JR2	E-5		
JR3	E-2		


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
JAPAN

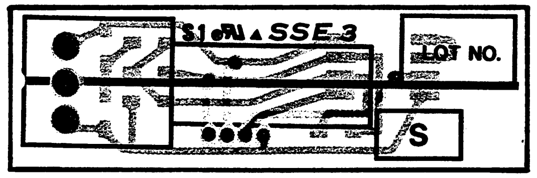
TG-119/119P -COMPONENT SIDE-
1-643-710-11
BVW-400A
BVW-400AP


8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I

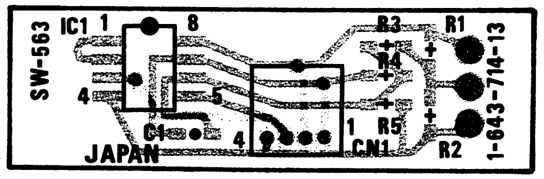
TG-119/119P -SOLDERING SIDE-
1-643-710-11
BVW-400A
BVW-400AP

SECTION 12
PRINTED WIRING BOARDS

S/N;40182 and higher


S1
SSE-3
LOT NO.
S

SW-563 -COMPONENT SIDE-
1-643-714-12,13
BVW-400A
BVW-400AP

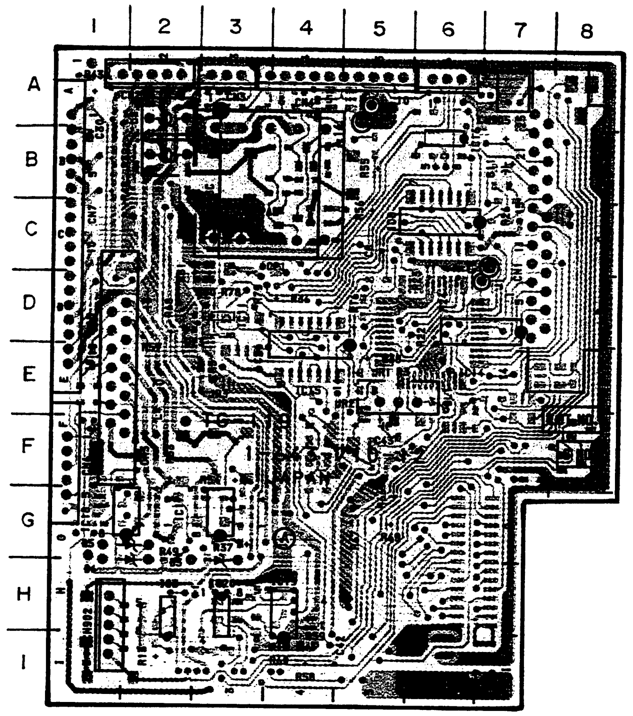

SW-563
IC1
1
8
4
C1
4
JAPAN
R3
R1
R4
1
R5
CN1
R2
1-643-714-13

SW-563 -SOLDERING SIDE-
1-643-714-12,13
BVW-400A
BVW-400AP

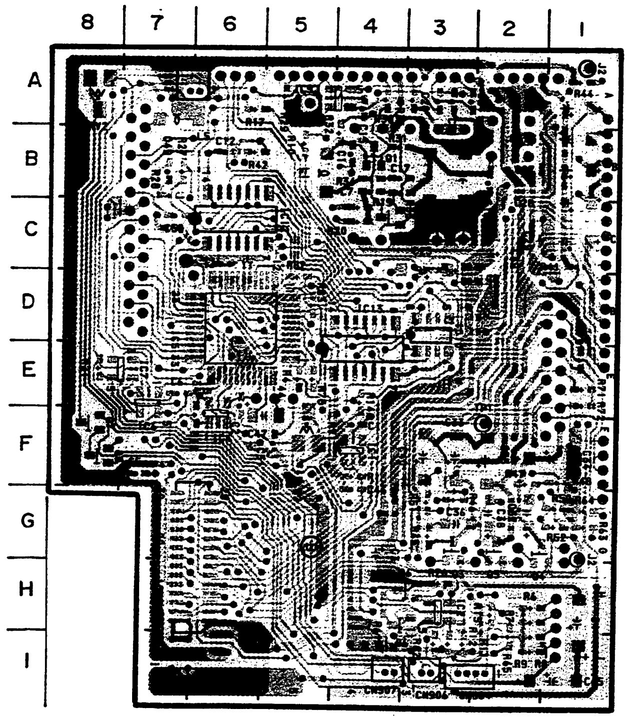
S/N;40361 and higher

TG-119P;TIMING GENERATOR

CN1	D-7	Q1	B-4
CN2	A-1	Q2	C-4
CN3	A-3	Q3	H-3
CN4	A-4	Q4	H-2
CN5	F-2	Q5	H-2
CN6	F-1	Q6	H-3
CN7	C-1	Q7	F-8
CN8	A-7	Q8	F-7
CN901	G-6	RV1	F-5
CN902	I-1	RV2	B-8
CN903	A-7		
CN904	I-3	TP1	E-2
CN905	A-6		
CN906	I-3		
CN907	I-4		
CP1	C-3		
DL1	E-6		
D3	H-2		
D4	H-1		
D5	G-1		
D6	I-4		
IC1	F-4		
IC2	H-3		
IC3	H-2		
IC4	F-6		
IC5	D-7		
IC6	F-7		
IC7	E-7		
IC8	C-5		
IC9	A-5		
IC10	D-3		
IC11	D-3		
IC12	C-5		
IC13	D-4		
IC14	E-6		
IC15	E-4		
IC16	B-6		
IC17	G-2		
IC18	G-1		
IC19	H-4		
IC20	H-3		
JR1	E-5		
JR2	E-5		
JR3	E-3		


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I

TG-119/119P -COMPONENT SIDE-
1-643-710-12
BVW-400A
BVW-400AP

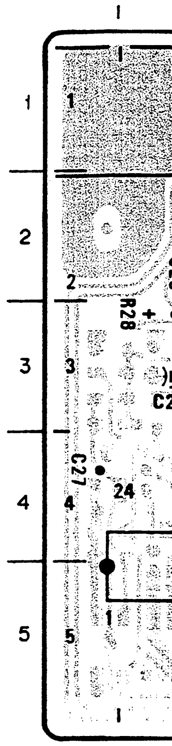

8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I

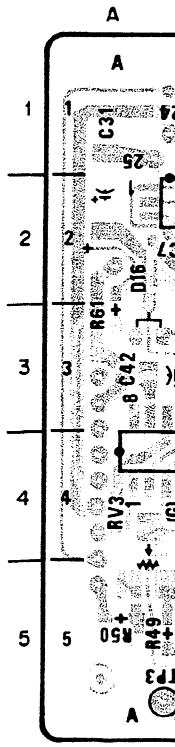
TG-119/119P -SOLDERING SIDE-
1-643-710-12
BVW-400A
BVW-400AP

DR-124 DR-124

DR-124;CCD DRIVE

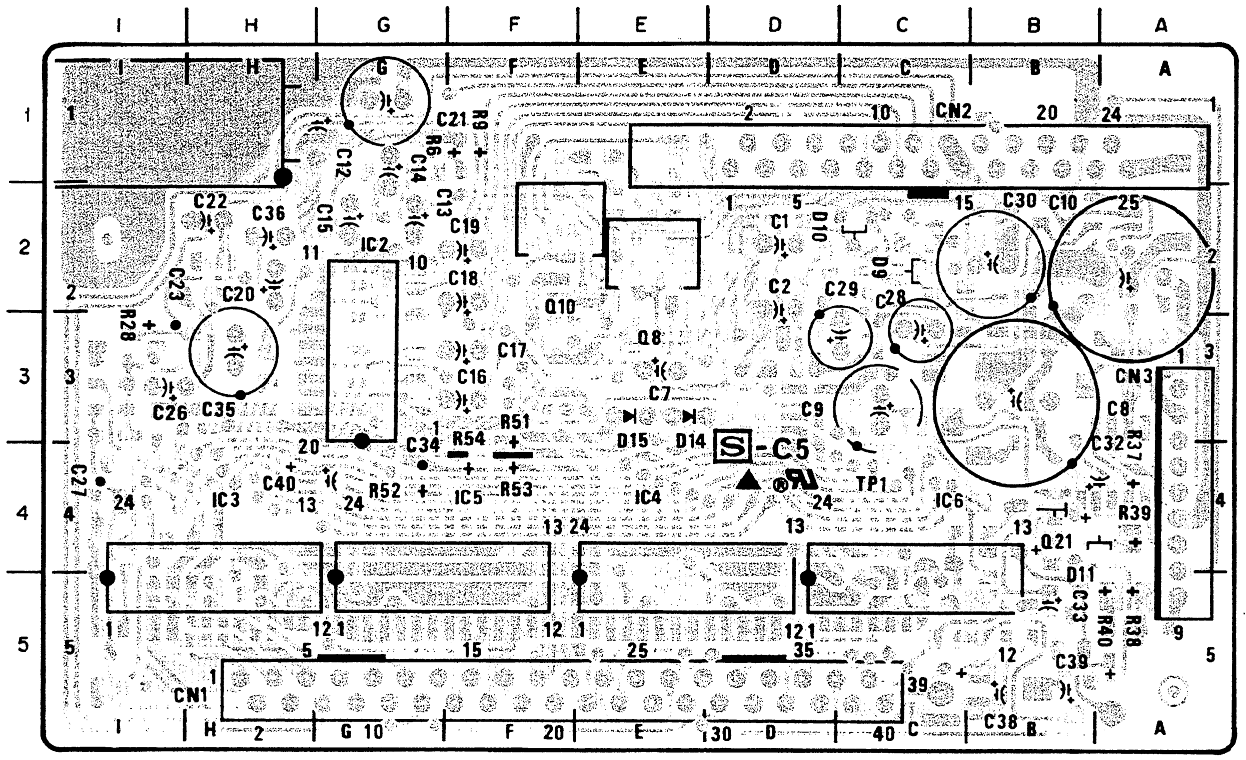
CN1	H-5	TP1	C-4
CN2	C-1	TP2	C-5
CN3	A-3	TP3	A-5
D1	F-2		
D3	G-1		
D4	G-1		
D5	G-3		
D6	G-3		
D7	I-4		
D9	C-2		
D10	D-2		
D11	B-5		
D12	H-4		
D13	H-3		
D14	E-3		
D15	E-3		
D16	A-2		
IC2	G-2		
IC3	H-4		
IC4	E-4		
IC5	F-4		
IC6	C-4		
IC7	A-2		
IC8	B-4		
Q1	D-2		
Q2	D-3		
Q3	D-3		
Q4	D-2		
Q5	E-3		
Q6	E-2		
Q7	F-2		
Q8	E-3		
Q9	E-1		
Q10	F-2		
Q12	I-2		
Q13	H-3		
Q14	I-3		
Q15	I-5		
Q16	I-5		
Q19	B-2		
Q20	C-2		
Q21	B-4		
Q22	B-4		
Q23	C-4		
Q24	B-5		
Q25	C-5		
Q26	B-4		
Q27	B-5		
RV1	B-3		
RV2	B-5		
RV3	A-4		


I
1
2
3
4
5
R28
C27
24
C2


A
1
2
3
4
5
C31
25
D16
R61
C42
RV3
R50
R49
TP3

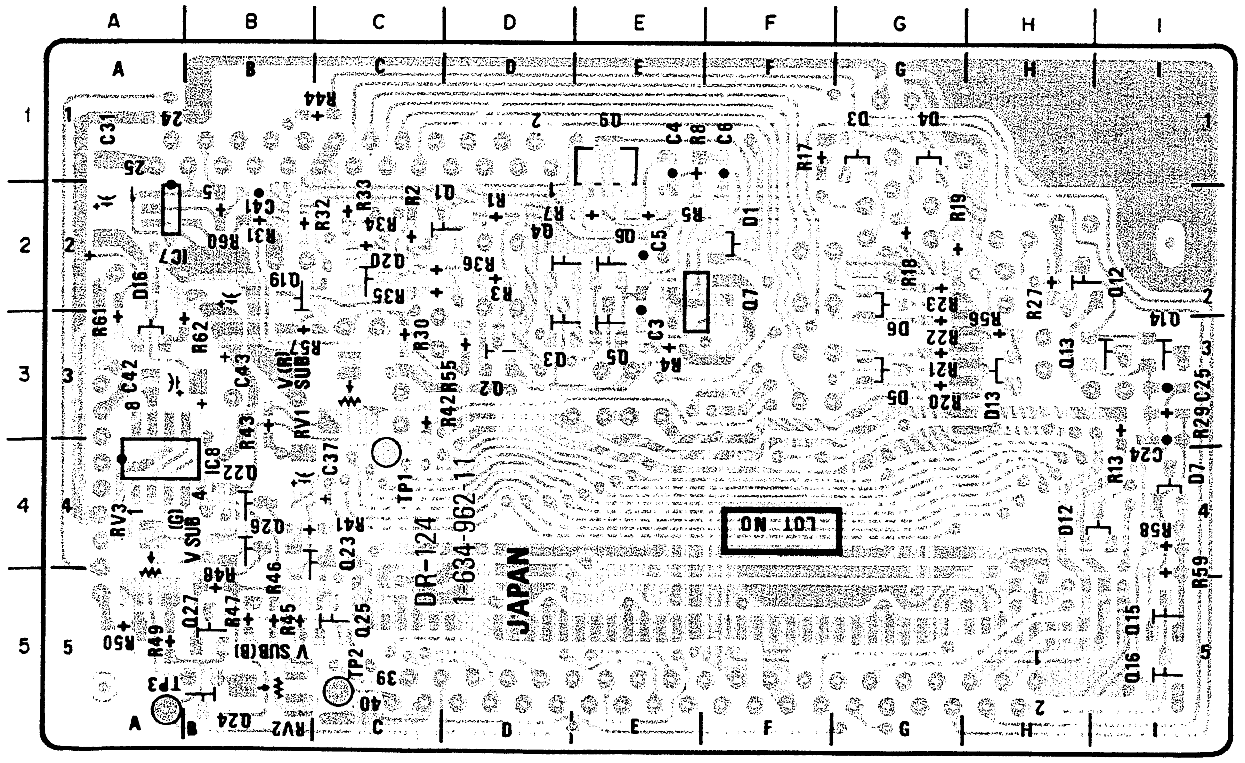
DR-124;CCD DRIVE

CN1	H-5	TP1	C-4
CN2	C-1	TP2	C-5
CN3	A-3	TP3	A-5
D1	F-2		
D3	G-1		
D4	G-1		
D5	G-3		
D6	G-3		
D7	I-4		
D9	C-2		
D10	D-2		
D11	B-5		
D12	H-4		
D13	H-3		
D14	E-3		
D15	E-3		
D16	A-2		
IC2	G-2		
IC3	H-4		
IC4	E-4		
IC5	F-4		
IC6	C-4		
IC7	A-2		
IC8	B-4		
Q1	D-2		
Q2	D-3		
Q3	D-3		
Q4	D-2		
Q5	E-3		
Q6	E-2		
Q7	F-2		
Q8	E-3		
Q9	E-1		
Q10	F-2		
Q12	I-2		
Q13	H-3		
Q14	I-3		
Q15	I-5		
Q16	I-5		
Q19	B-2		
Q20	C-2		
Q21	B-4		
Q22	B-4		
Q23	C-4		
Q24	B-5		
Q25	C-5		
Q26	B-4		
Q27	B-5		
RV1	B-3		
RV2	B-5		
RV3	A-4		


I
H
G
F
E
D
C
B
A
1
2
3
4
5
CN1
CN2
CN3
IC2
IC3
IC4
IC5
IC6
TP1
S-C5

DR-124 -COMPONENT SIDE-

1-634-962-11
BVW-400A
BVW-400AP


A
B
C
D
E
F
G
H
I
1
2
3
4
5
IC7
IC8
RV1
RV2
RV3
TP1
TP2
TP3
DR-124
1-634-962-11
JAPAN
LOT NO

DR-124 -SOLDERING SIDE-

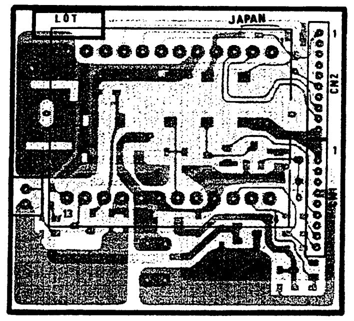
1-634-962-11
BVW-400A
BVW-400AP

CCD BLOCK CCD BLOCK

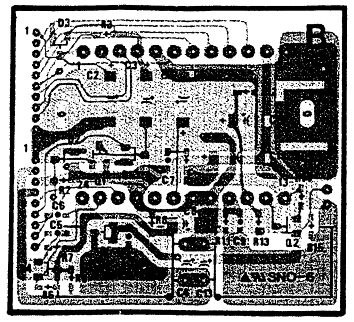
BI-29,BI-30,BI-31;CCD BIAS S/N;40001 through 40031

BI-69,BI-70,BI-71;CCD BIAS S/N;40032 and higher

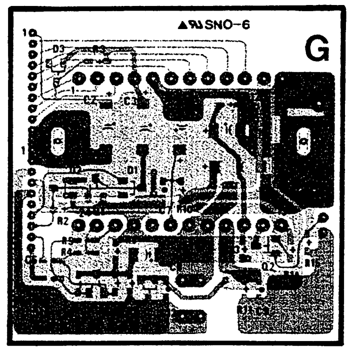
CN-803;CONNECTOR



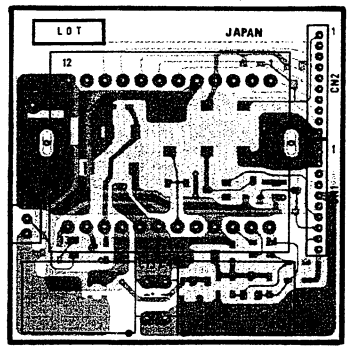
BI-29 -COMPONENT SIDE-
1-630-554-12
BI-69
1-644-491-11
BVW-400A
BVW-400AP



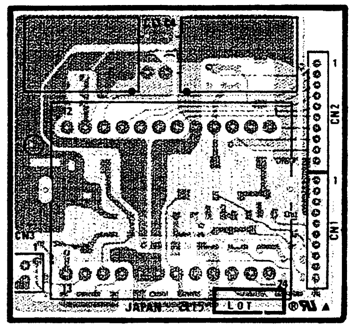
BI-29 -SOLDERING SIDE-
1-630-554-12
BI-69
1-644-491-11
BVW-400A
BVW-400AP



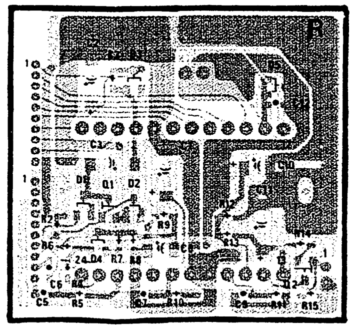
BI-30 -COMPONENT SIDE-
1-630-555-11
BI-70
1-644-492-11
BVW-400A
BVW-400AP



BI-30 -SOLDERING SIDE-
1-630-555-11
BI-70
1-644-492-11
BVW-400A
BVW-400AP



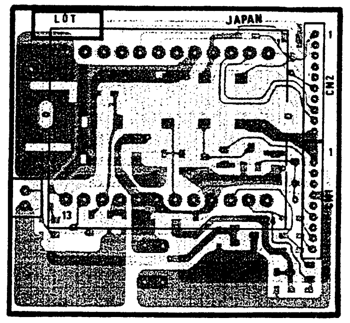
BI-31 -COMPONENT SIDE-
1-630-556-11
BI-71
1-644-493-11
BVW-400A
BVW-400AP



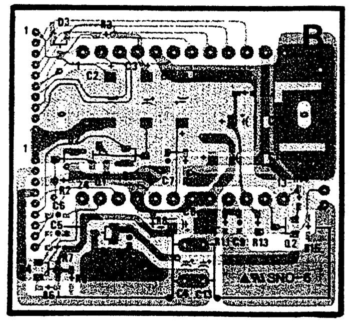
BI-31 -SOLDERING SIDE-
1-630-556-11
BI-71
1-644-493-11
BVW-400A
BVW-400AP

CN
1-64
BVW-
BVW-

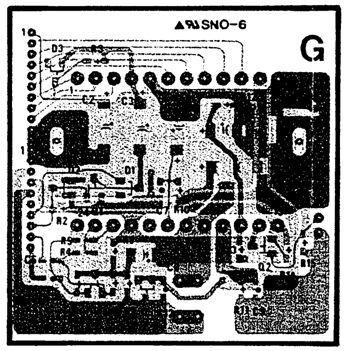
BI-29,BI-30,BI-31;CCD BIAS S/N;40001 through 40031
BI-69,BI-70,BI-71;CCD BIAS S/N;40032 and higher
CN-803;CONNECTOR



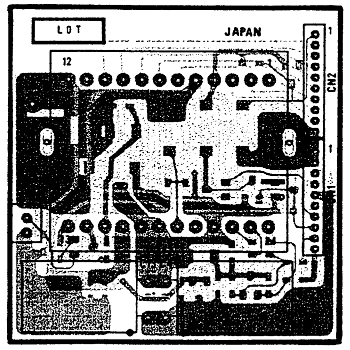
BI-29 -COMPONENT SIDE-
1-630-554-12
BI-69
1-644-491-11
BVW-400A
BVW-400AP



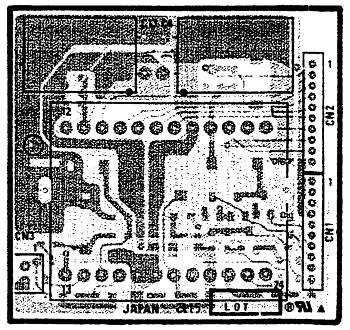
BI-29 -SOLDERING SIDE-
1-630-554-12
BI-69
1-644-491-11
BVW-400A
BVW-400AP



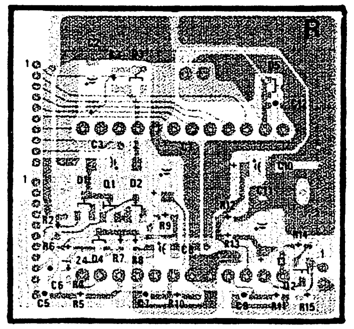
BI-30 -COMPONENT SIDE-
1-630-555-11
BI-70
1-644-492-11
BVW-400A
BVW-400AP



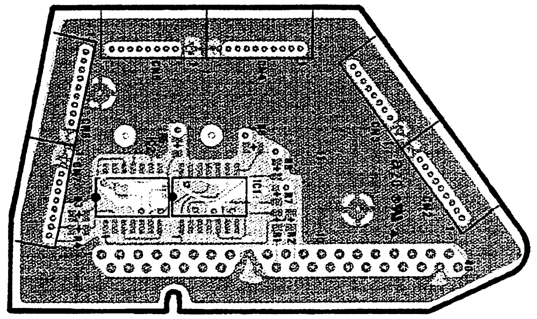
BI-30 -SOLDERING SIDE-
1-630-555-11
BI-70
1-644-492-11
BVW-400A
BVW-400AP



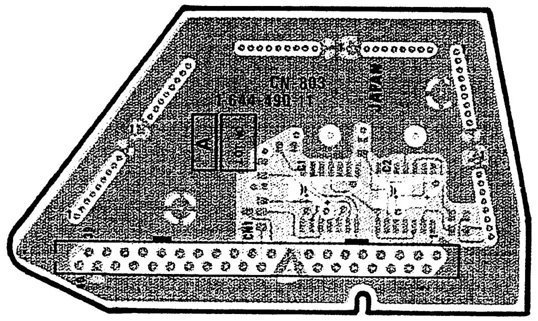
BI-31 -COMPONENT SIDE-
1-630-556-11
BI-71
1-644-493-11
BVW-400A
BVW-400AP



BI-31 -SOLDERING SIDE-
1-630-556-11
BI-71
1-644-493-11
BVW-400A
BVW-400AP



CN-803 -COMPONENT SIDE-
1-644-490-11
BVW-400A
BVW-400AP

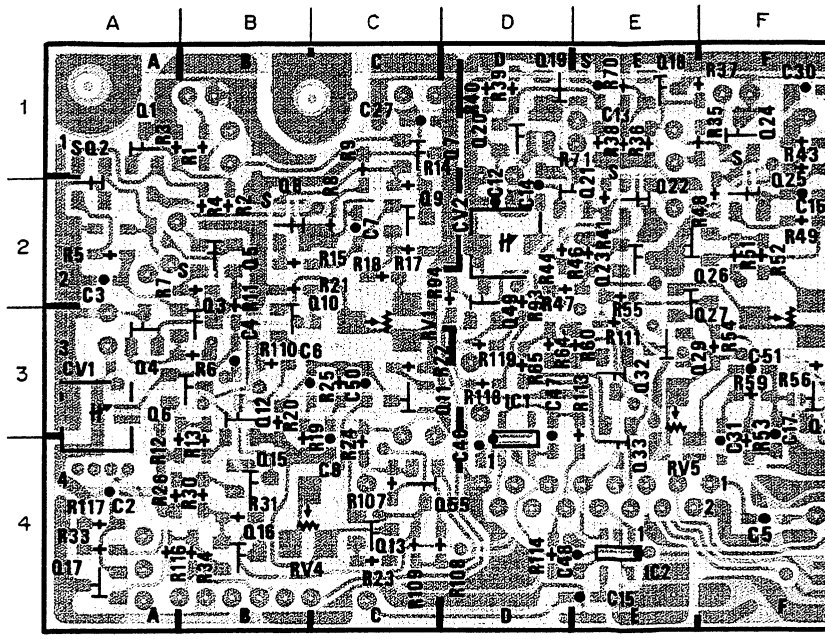


CN-803 -SOLDERING SIDE-
1-644-490-11
BVW-400A
BVW-400AP

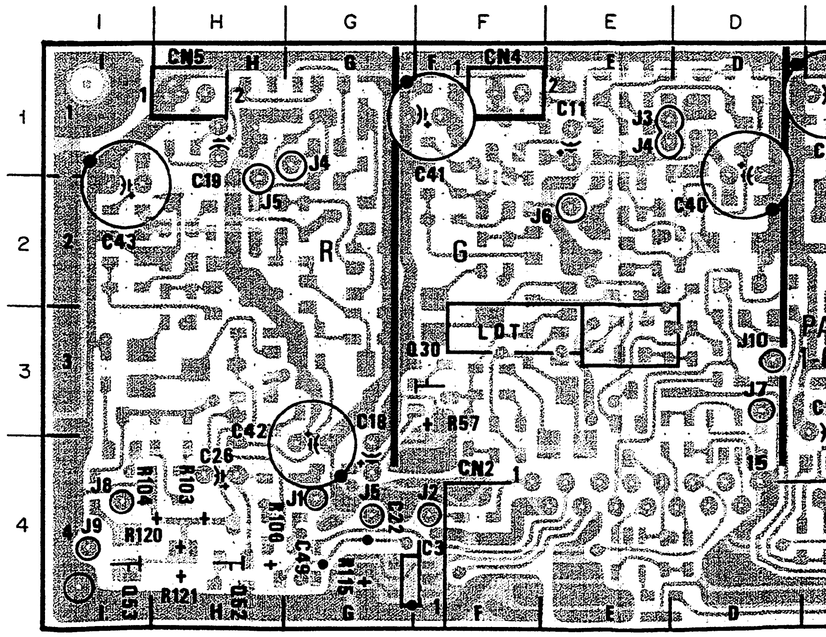
PA-155;CCD PRE-AMP

S/N;40001 through 40360

CN1	A-4
CN2	F-4
CN3	B-1
CN4	F-1
CN5	H-1
CN10	A-4
CV1	A-3
CV2	D-2
CV3	G-3
IC1	D-3
IC2	E-4
IC3	F-4
Q1	A-1
Q2	A-1
Q3	B-2
Q4	A-3
Q5	B-2
Q6	A-3
Q7	D-1
Q8	B-2
Q9	C-2
Q10	C-2
Q11	C-3
Q12	B-3
Q13	C-3
Q15	B-4
Q16	B-4
Q17	A-4
Q18	E-1
Q19	D-1
Q20	D-1
Q21	E-2
Q22	E-3
Q24	F-1
Q25	F-1
Q26	F-2
Q27	F-3
Q28	F-3
Q29	E-3
Q30	F-3
Q32	E-3
Q33	E-4
Q34	G-1
Q35	G-2
Q36	G-2
Q37	G-2
Q38	H-2
Q39	G-3
Q40	H-1
Q41	H-2
Q42	H-2
Q43	G-3
Q44	I-3
Q45	H-3
Q46	H-4
Q49	D-3
Q51	G-4
Q52	I-4
Q53	I-4
Q55	C-3
RV1	C-3
RV2	F-3
RV3	I-3
RV4	B-4
RV5	E-4
RV6	I-4


A
B
C
D
E
F
1
2
3
4
Q1
Q2
C3
CV1
C27
Q8
Q9
Q10
IC1
IC2
RV4
RV5
C5
C15
R117
R33
Q17

PA-
1-643-7
BVW-400
BVW-400

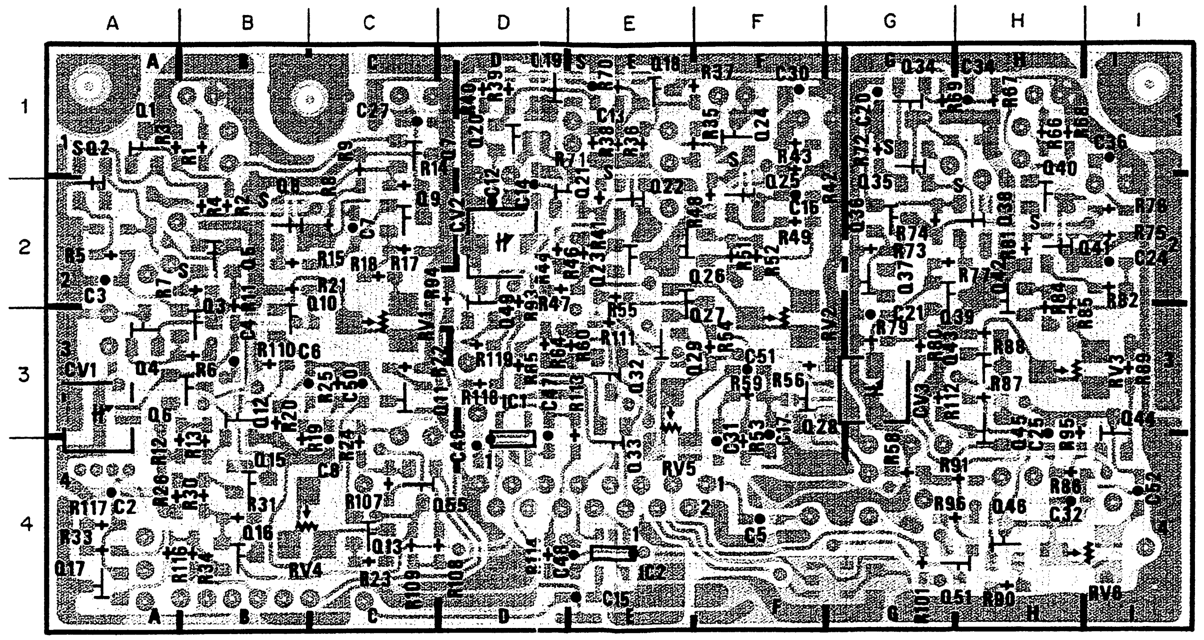

I
H
G
F
E
D
1
2
3
4
CN5
CN4
CN2
C19
C41
C40
C43
C42
C26
C18
J4
J5
J6
J1
J2
J8
J9
J10
LDT
Q30
R57
R120
R121

PA-
1-643-7
BVW-400
BVW-400

PA-155;CCD PRE-AMP

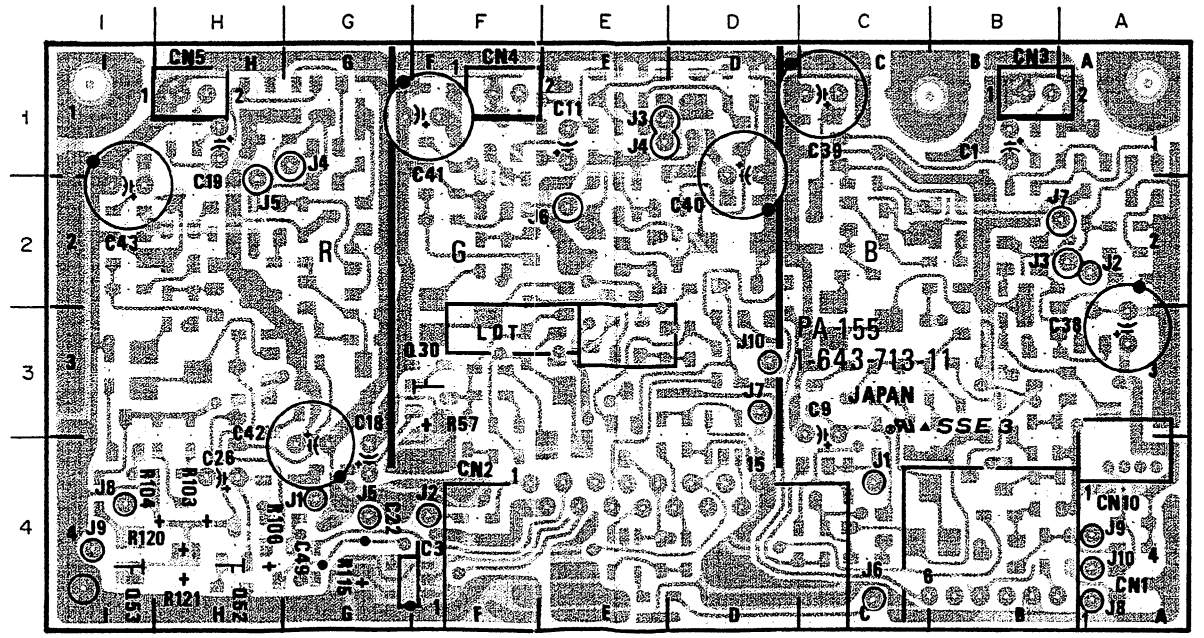
S/N;40001 through 40360

CN1	A-4
CN2	F-4
CN3	B-1
CN4	F-1
CN5	H-1
CN10	A-4
CV1	A-3
CV2	D-2
CV3	G-3
IC1	D-3
IC2	E-4
IC3	F-4
Q1	A-1
Q2	A-1
Q3	B-2
Q4	A-3
Q5	B-2
Q6	A-3
Q7	D-1
Q8	B-2
Q9	C-2
Q10	C-2
Q11	C-3
Q12	B-3
Q13	C-3
Q15	B-4
Q16	B-4
Q17	A-4
Q18	E-1
Q19	D-1
Q20	D-1
Q21	E-2
Q22	E-3
Q24	F-1
Q25	F-1
Q26	F-2
Q27	F-3
Q28	F-3
Q29	E-3
Q30	F-3
Q32	E-3
Q33	E-4
Q34	G-1
Q35	G-2
Q36	G-2
Q37	G-2
Q38	H-2
Q39	G-3
Q40	H-1
Q41	H-2
Q42	H-2
Q43	G-3
Q44	I-3
Q45	H-3
Q46	H-4
Q49	D-3
Q51	G-4
Q52	I-4
Q53	I-4
Q55	C-3
RV1	C-3
RV2	F-3
RV3	I-3
RV4	B-4
RV5	E-4
RV6	I-4



PA-155 -COMPONENT SIDE-

1-643-713-11
BVW-400A
BVW-400AP



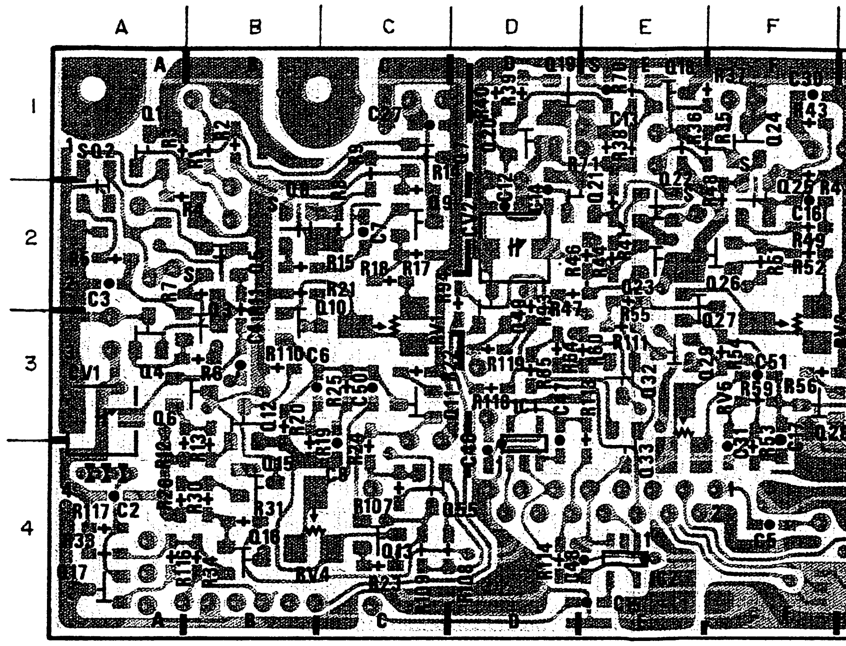
PA-155 -SOLDERING SIDE-

1-643-713-11
BVW-400A
BVW-400AP

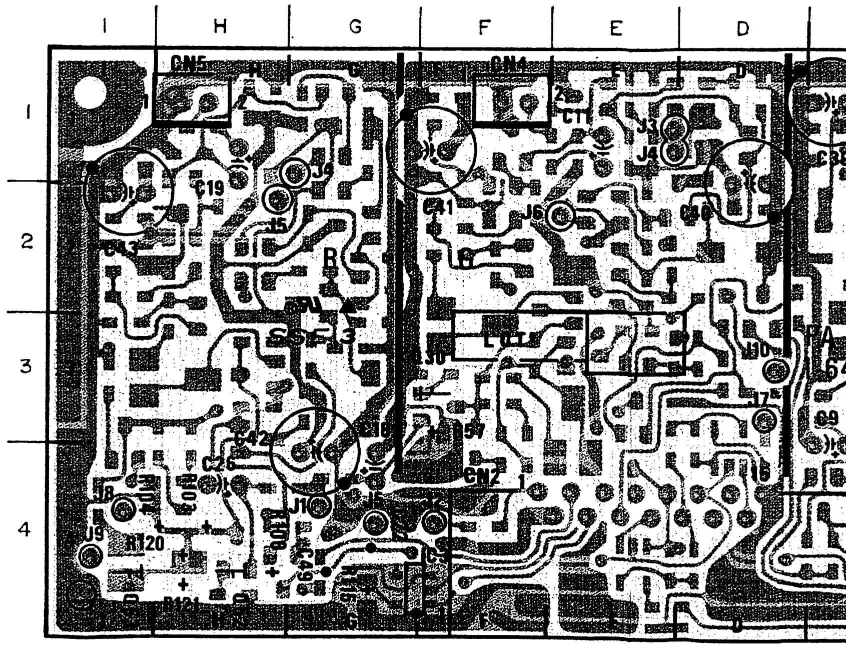
PA-155;CCD PRE-AMP

S/N;40361 and higher

CN1	A-4
CN2	F-4
CN3	B-1
CN4	F-1
CN5	H-1
CN10	A-4
CV1	A-3
CV2	D-2
CV3	G-3
IC1	D-3
IC2	E-4
IC3	F-4
Q1	A-1
Q2	A-1
Q3	B-2
Q4	A-3
Q5	B-2
Q6	A-3
Q7	D-1
Q8	B-2
Q9	C-2
Q10	C-2
Q11	C-3
Q12	B-3
Q13	C-3
Q15	B-4
Q16	B-4
Q17	A-4
Q18	E-1
Q19	D-1
Q20	D-1
Q21	E-2
Q22	E-3
Q24	F-1
Q25	F-1
Q26	F-2
Q27	F-3
Q28	F-3
Q29	E-3
Q30	F-3
Q32	E-3
Q33	E-4
Q34	G-1
Q35	G-2
Q36	G-2
Q37	G-2
Q38	H-2
Q39	G-3
Q40	H-1
Q41	H-2
Q42	H-2
Q43	G-3
Q44	I-3
Q45	H-3
Q46	H-4
Q49	D-3
Q51	G-4
Q52	I-4
Q53	I-4
Q55	C-3
RV1	C-3
RV2	F-3
RV3	I-3
RV4	B-4
RV5	E-4
RV6	I-4



PA-1
1-643-71
BVW-400A
BVW-400A

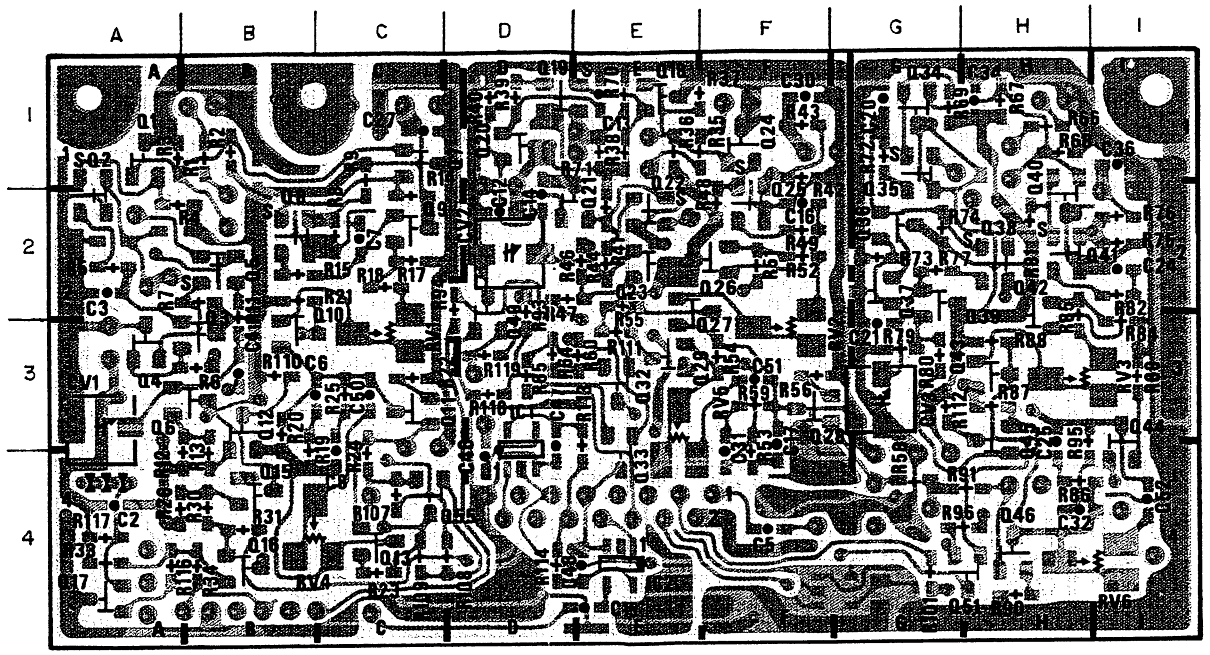


PA-1
1-643-71
BVW-400A
BVW-400A

PA-155;CCD PRE-AMP

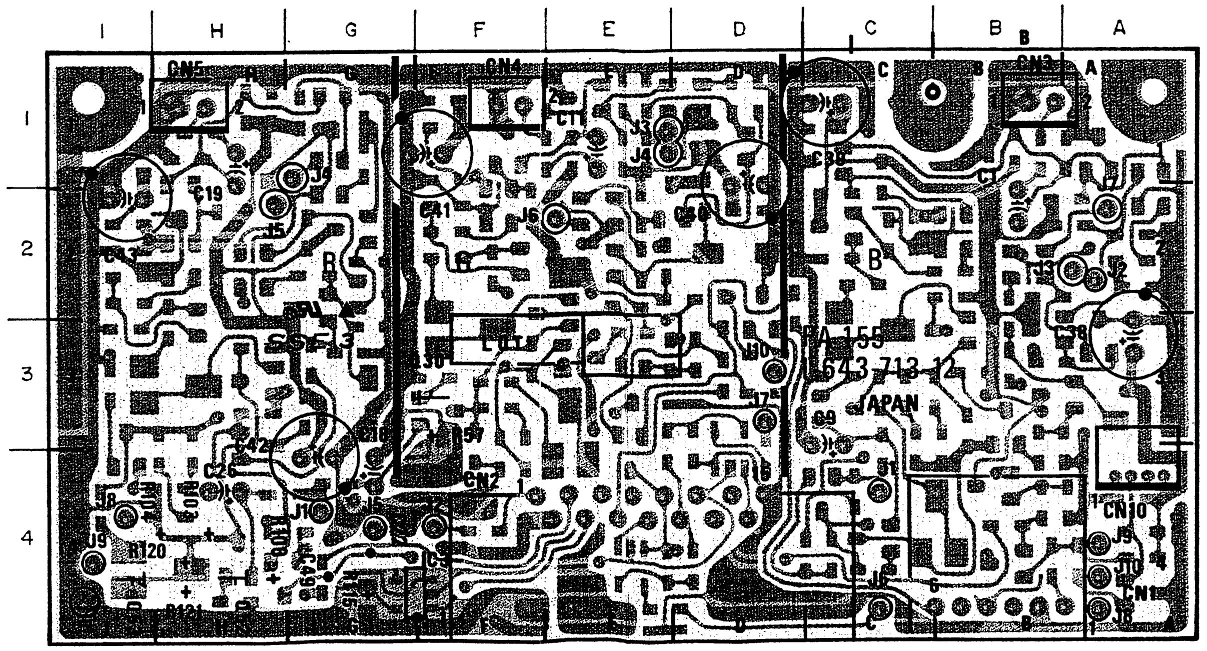
S/N;40361 and higher

CN1	A-4
CN2	F-4
CN3	B-1
CN4	F-1
CN5	H-1
CN10	A-4
CV1	A-3
CV2	D-2
CV3	G-3
IC1	D-3
IC2	E-4
IC3	F-4
Q1	A-1
Q2	A-1
Q3	B-2
Q4	A-3
Q5	B-2
Q6	A-3
Q7	D-1
Q8	B-2
Q9	C-2
Q10	C-2
Q11	C-3
Q12	B-3
Q13	C-3
Q15	B-4
Q16	B-4
Q17	A-4
Q18	E-1
Q19	D-1
Q20	D-1
Q21	E-2
Q22	E-3
Q24	F-1
Q25	F-1
Q26	F-2
Q27	F-3
Q28	F-3
Q29	E-3
Q30	F-3
Q32	E-3
Q33	E-4
Q34	G-1
Q35	G-2
Q36	G-2
Q37	G-2
Q38	H-2
Q39	G-3
Q40	H-1
Q41	H-2
Q42	H-2
Q43	G-3
Q44	I-3
Q45	H-3
Q46	H-4
Q49	D-3
Q51	G-4
Q52	I-4
Q53	I-4
Q55	C-3
RV1	C-3
RV2	F-3
RV3	I-3
RV4	B-4
RV5	E-4
RV6	I-4


A
B
C
D
E
F
G
H
I
1
2
3
4

PA-155 -COMPONENT SIDE-

1-643-713-12
BVW-400A
BVW-400AP


I
H
G
F
E
D
C
B
A
1
2
3
4
CN5
CN4
CN3
CN2
CN10
PA-155
1-643-713-12
JAPAN

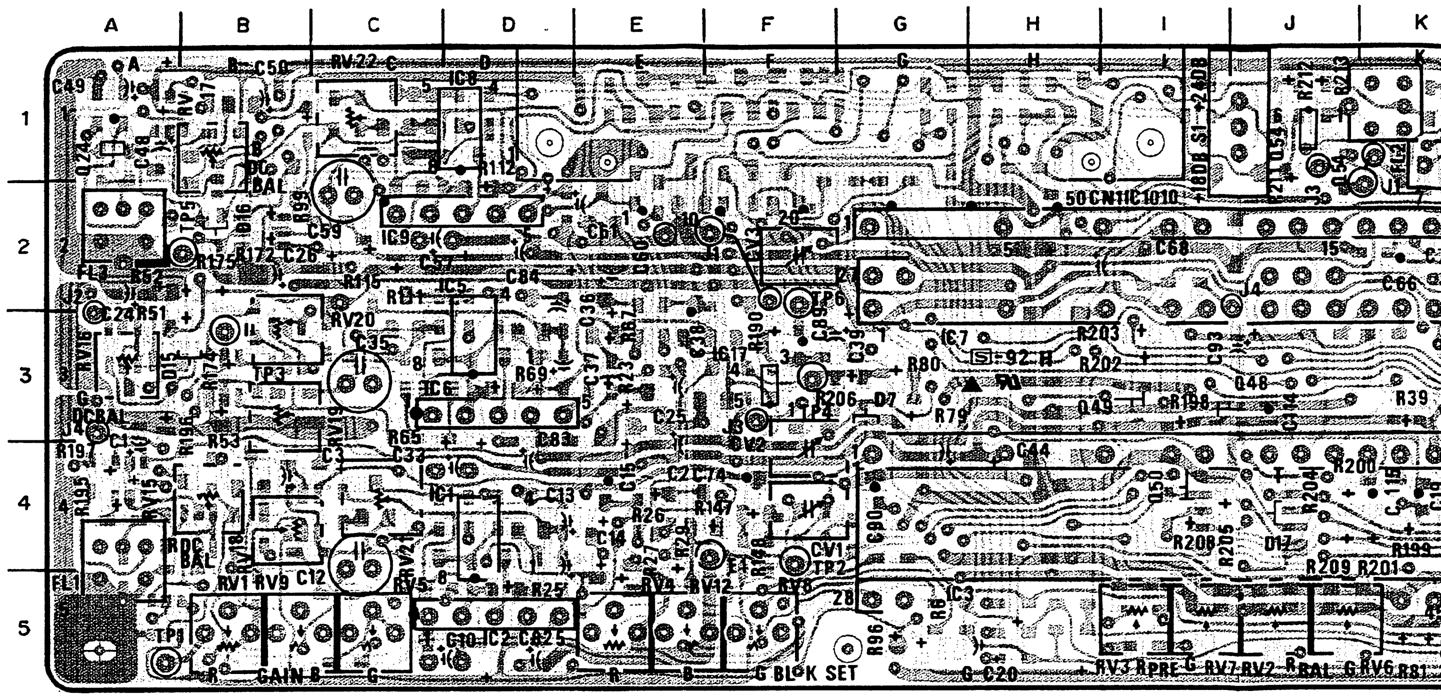
PA-155 -SOLDERING SIDE-

1-643-713-12
BVW-400A
BVW-400AP

VA-104;VIDEO AMP,BLOCK SET,SHADING COMPE

S/N;40001 through 40360

CN1	I-2	Q15	B-3	TP2	F-4
		Q16	C-2	TP3	B-3
CV1	F-4	Q17	C-3	TP4	F-3
CV2	F-3	Q18	D-2	TP5	B-2
CV3	F-2	Q19	E-2	TP6	F-2
		Q20	E-2		
DL1	L-1	Q21	E-3		
		Q22	F-2		
D1	A-2	Q23	A-1		
D2	D-4	Q24	A-1		
D3	E-5	Q25	B-2		
D5	D-3	Q26	B-1		
D6	E-4	Q27	C-1		
D7	G-3	Q28	C-1		
D9	D-1	Q29	E-1		
D10	E-2	Q30	F-1		
D14	B-4	Q31	F-1		
D15	A-3	Q32	E-2		
D16	B-2	Q33	F-1		
D17	J-4	Q34	H-1		
		Q35	I-2		
E1	E-4	Q36	J-2		
		Q44	F-3		
FL1	A-5	Q45	B-1		
FL2	K-1	Q48	J-3		
FL3	A-2	Q49	H-3		
		Q50	I-4		
IC1	C-4	Q51	K-1		
IC2	D-5	Q52	K-1		
IC3	G-5	Q53	B-3		
IC4	L-3	Q54	J-1		
IC5	D-2				
IC6	C-3	RV1	B-5		
IC7	G-3	RV2	J-5		
IC8	D-1	RV3	I-5		
IC9	C-2	RV4	E-5		
IC10	I-2	RV5	C-5		
IC12	N-4	RV6	K-5		
IC13	J-5	RV7	I-5		
IC15	N-2	RV8	F-5		
IC16	M-3	RV9	B-5		
IC17	F-3	RV10	N-2		
		RV11	L-2		
Q1	A-3	RV12	F-5		
Q2	B-4	RV15	A-4		
Q3	A-5	RV16	A-3		
Q4	B-4	RV17	B-1		
Q5	C-4	RV18	B-4		
Q6	C-4	RV19	C-3		
Q7	D-4	RV20	C-3		
Q8	E-4	RV21	C-4		
Q9	F-4	RV22	C-1		
Q10	F-5				
Q11	F-4	S1	I-1		
Q12	L-1	S2	N-1		
Q13	A-3				
Q14	B-3	TP1	A-5		



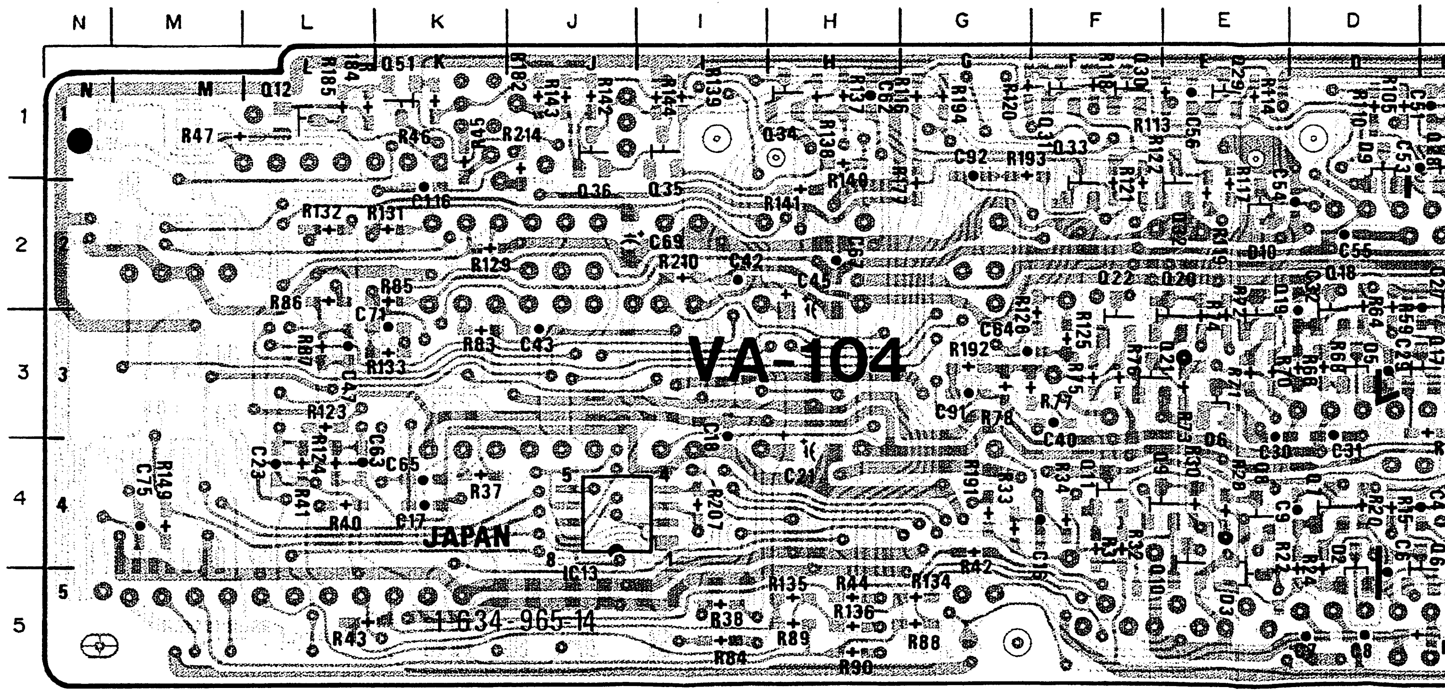
A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
GAIN B
G BLK SET
RV3 RPRE
RV7 RV2
RBAL
G RV6
DC BAL
RDC BAL

VA-

1-634-9

BVW-400

BVW-400



N
M
L
K
J
I
H
G
F
E
D
1
2
3
4
5
VA-104
JAPAN
1-634-965-14

VA-

1-634-9

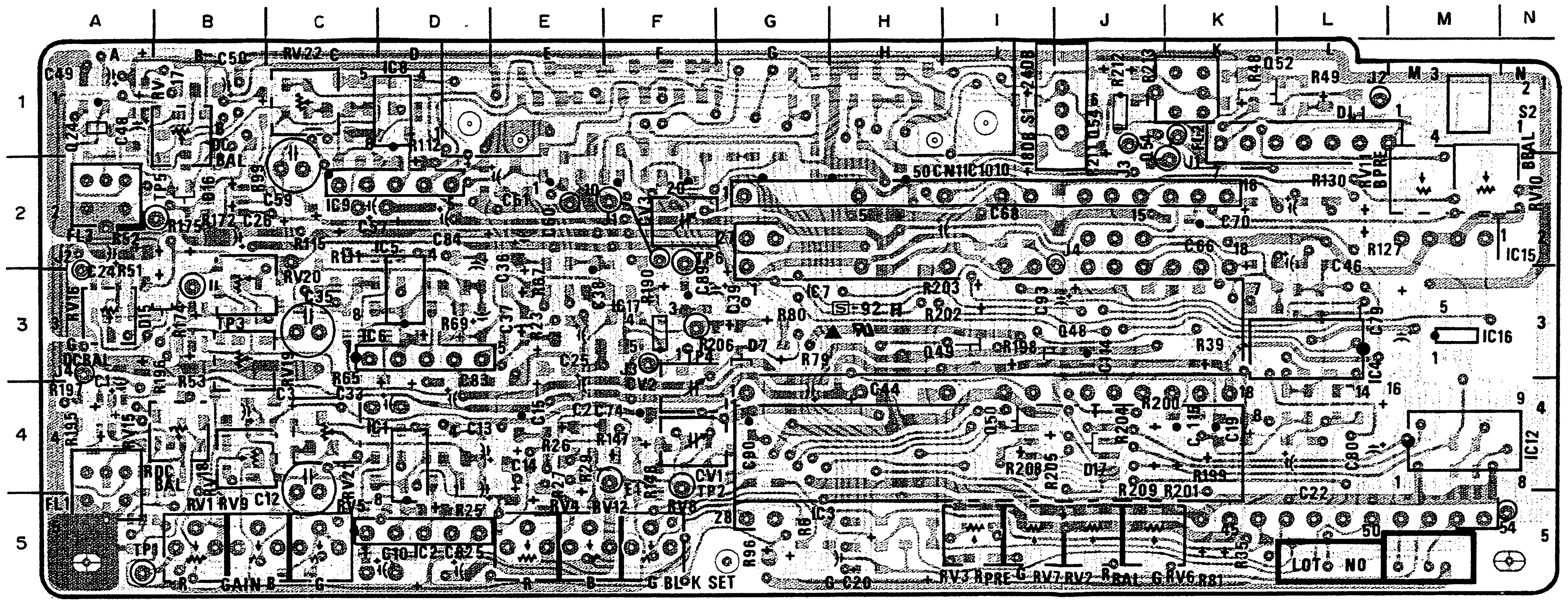
BVW-400

BVW-400

VA-104;VIDEO AMP,BLOCK SET,SHADING COMPE

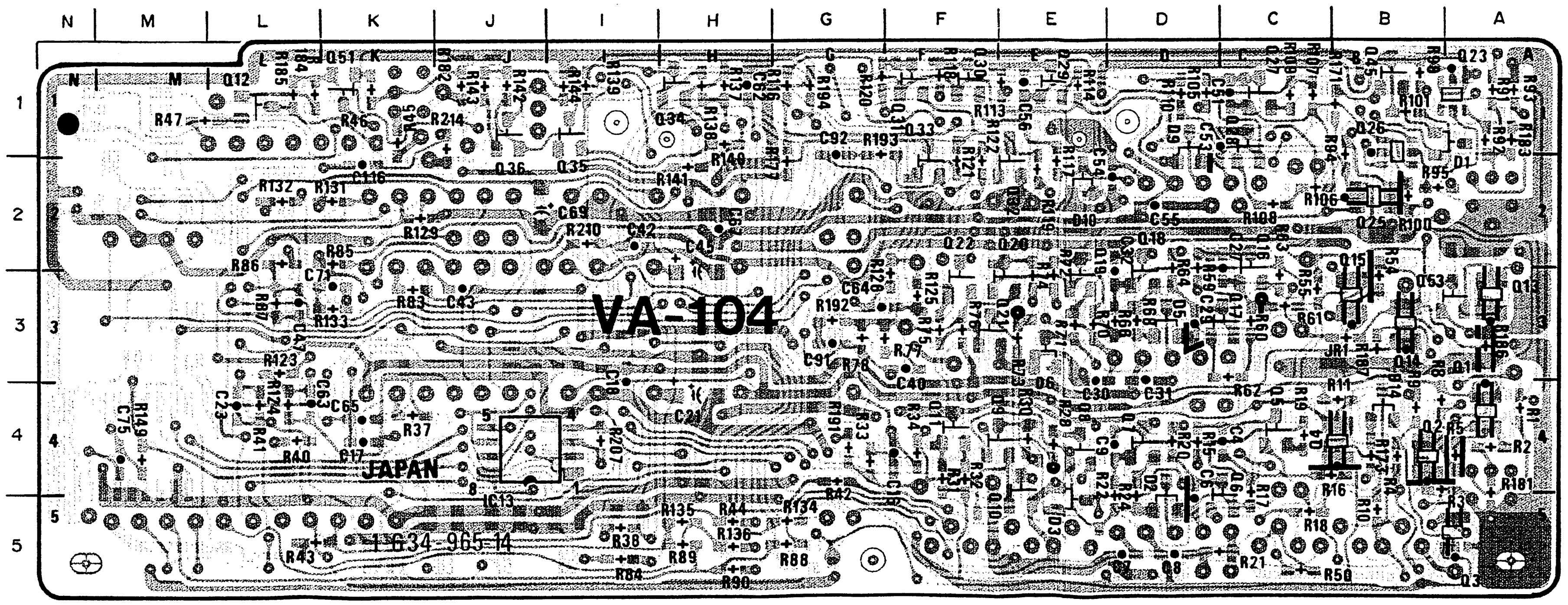
S/N;40001 through 40360

-4
-3
-3
-2
-2


A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
GAIN B
G
R
B
G BLK SET
G C20
RV3 R PRE G RV7 RV2 R BAL G RV6 R81
LOT NO
IC12
IC15
IC16
S2
RV10 B BAL

VA-104 -COMPONENT SIDE-

1-634-965-14
BVW-400A
BVW-400AP


N
M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
VA-104
JAPAN
1-634-965-14
IC13

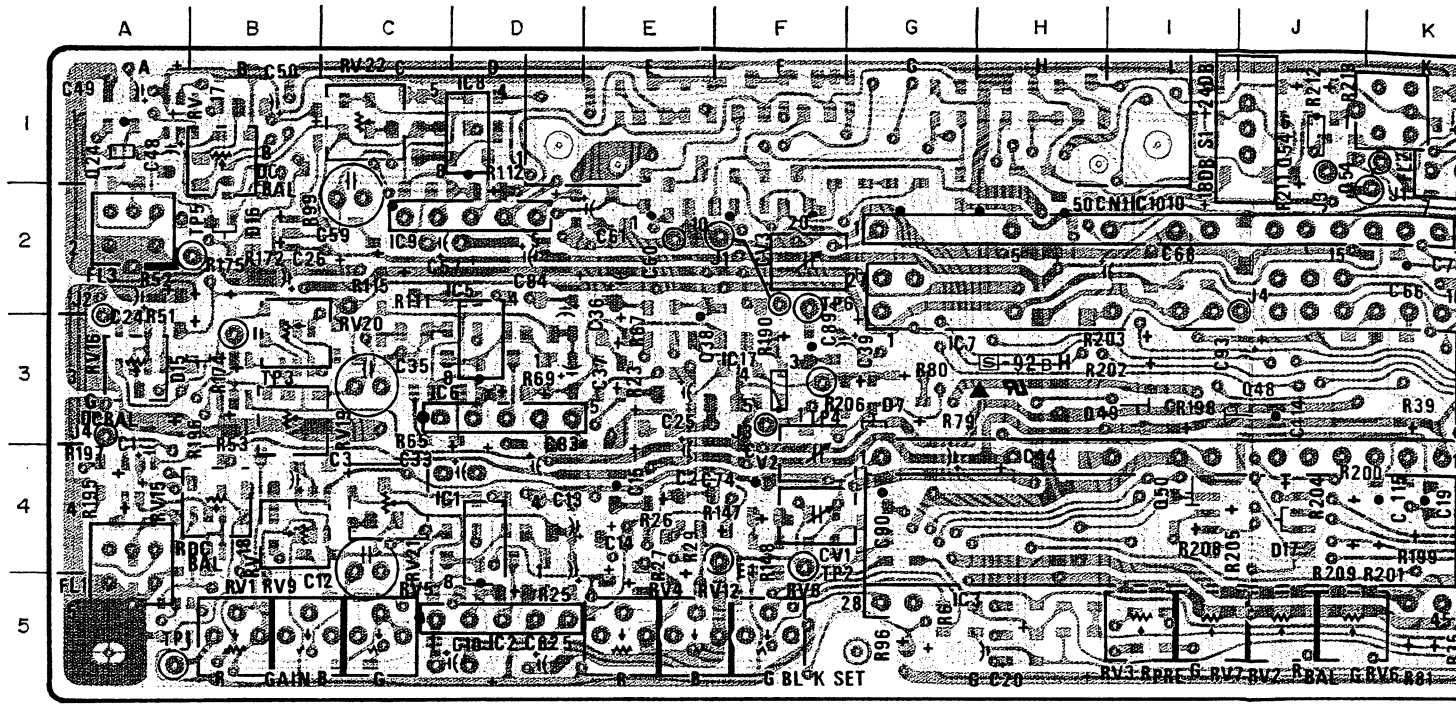
VA-104 -SOLDERING SIDE-

1-634-965-14
BVW-400A
BVW-400AP

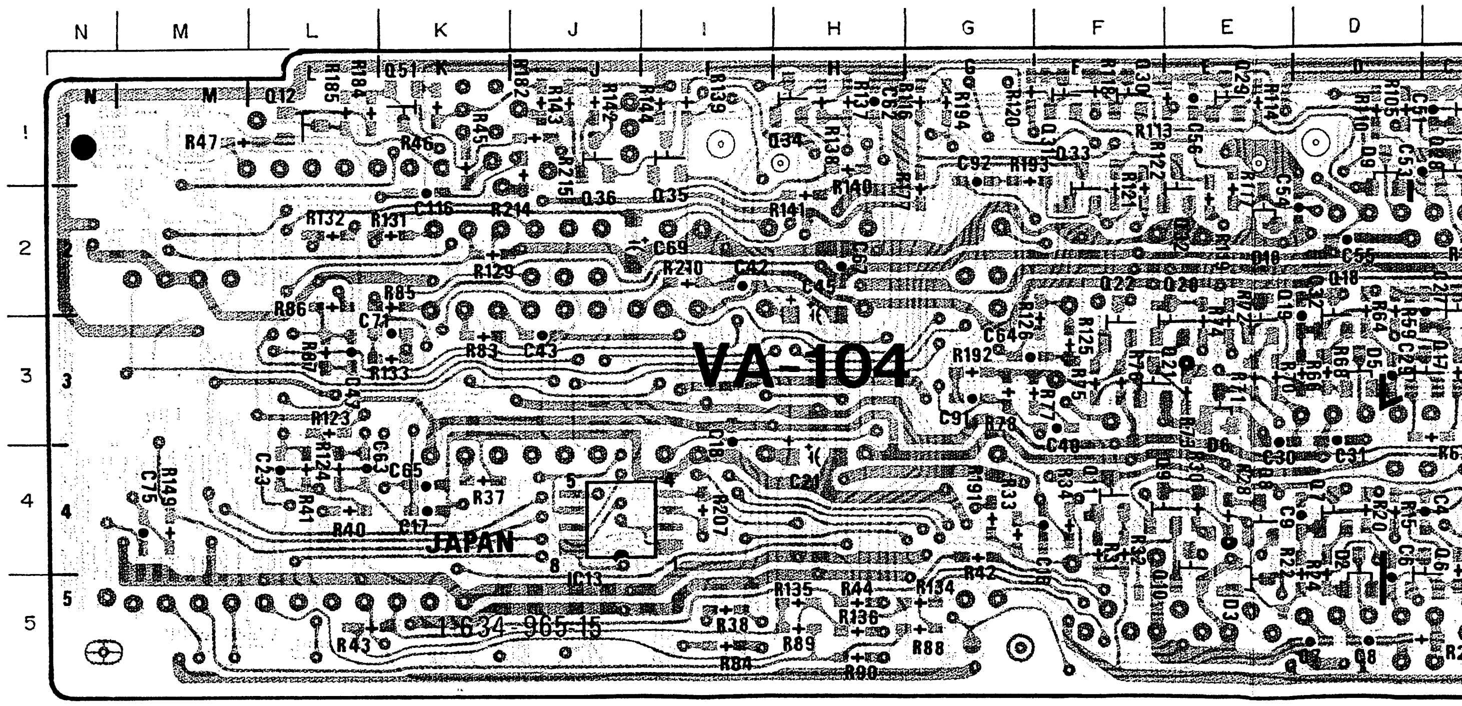
VA-104;VIDEO AMP,BLOCK SET,SHADING COMPE

S/N;40361 and higher

CN1	I-2
CV1	F-4
CV2	F-3
CV3	F-2
DL1	L-1
D1	A-2
D2	D-4
D3	E-5
D5	D-3
D6	E-4
D7	G-3
D9	D-1
D10	E-2
D14	B-4
D15	A-3
D16	B-2
D17	J-4
E1	E-4
FL1	A-5
FL2	K-1
FL3	A-2
IC1	C-4
IC2	D-5
IC3	G-5
IC4	L-3
IC5	D-2
IC6	C-3
IC7	G-3
IC8	D-1
IC9	C-2
IC10	I-2
IC12	N-4
IC13	J-5
IC15	N-2
IC16	M-3
IC17	F-3
Q1	A-3
Q2	B-4
Q3	A-5
Q4	B-4
Q5	C-4
Q6	C-4
Q7	D-4
Q8	E-4
Q9	F-4
Q10	F-5
Q11	F-4
Q12	L-1
Q13	A-3
Q14	B-3
Q15	B-3
Q16	C-2
Q17	C-3
Q18	D-2
Q19	E-2
Q20	E-2
Q21	E-3
Q22	F-2
Q23	A-1
Q24	A-1
Q25	B-2
Q26	B-1
Q27	C-1
Q28	C-1
Q29	E-1
Q30	F-1
Q31	F-1
Q32	E-2
Q33	F-1
Q34	H-1
Q35	I-2
Q36	J-2
Q44	F-3
Q45	B-1
Q48	J-3
Q49	H-3
Q50	I-4
Q51	K-1
Q52	K-1
Q53	B-3
Q54	J-1
RV1	B-5
RV2	J-5
RV3	I-5
RV4	E-5
RV5	C-5
RV6	K-5
RV7	I-5
RV8	F-5
RV9	B-5
RV10	N-2
RV11	L-2
RV12	F-5
RV15	A-4
RV16	A-3
RV17	B-1
RV18	B-4
RV19	C-3
RV20	C-3
RV21	C-4
RV22	C-1
S1	I-1
S2	N-1
TP1	A-5
TP2	F-4
TP3	B-3
TP4	F-3
TP5	B-2
TP6	F-2



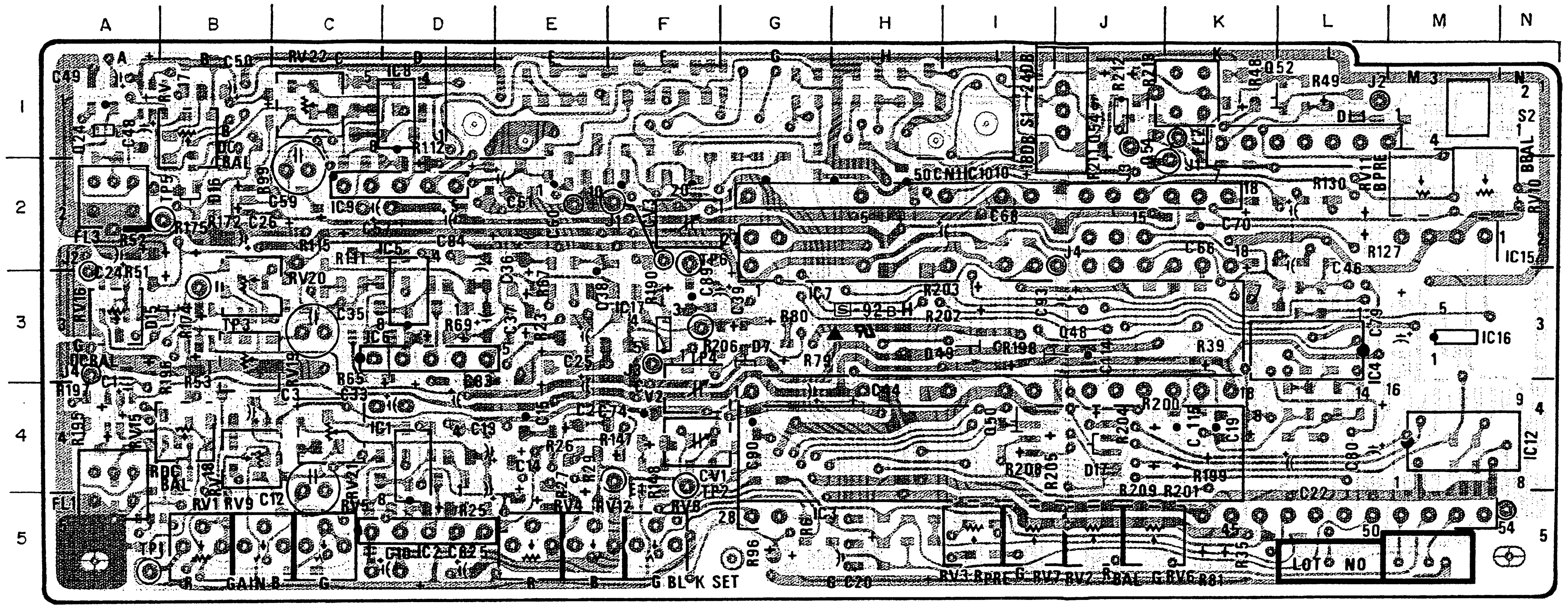
VA-
1-634-9
BVW-400
BVW-400



VA-
1-634-96
BVW-400/
BVW-400/

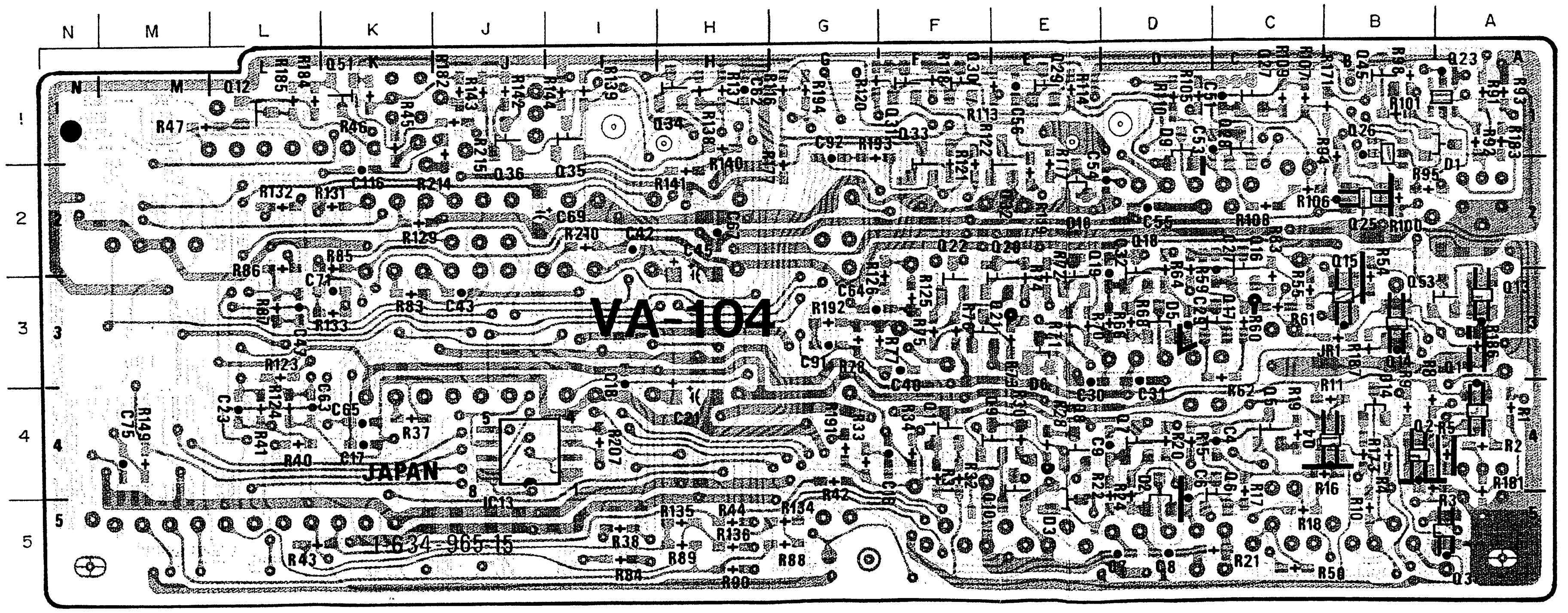
VA-104;VIDEO AMP,BLOCK SET,SHADING COMPE

S/N;40361 and higher


A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
C49
C50
RV22
IC8
R112
IC9
C59
R175
R172
C26
R115
R111
IC5
C84
RV20
C35
R69
IC6
R65
C33
C3
IC1
C13
R26
R147
RV1
RV9
C12
RV5
RV4
RV12
RV8
CV1
CV2
TP1
TP2
TP3
TP4
TP6
GAIN B
G
B
G BL K SET
G C20
R96
CN1
IC10
C68
C66
C70
C46
R127
IC15
R130
R49
Q52
D4
IC16
IC4
IC12
IC7
R80
R79
R203
R202
CR198
Q48
R39
C44
R200
R204
R205
R208
D17
R199
R209
R201
C22
RV3
RV7
RV2
RV6
R81
LOT NO
FL1
FL3
R52
R51
C24
RDC
BAL
R197
C1
R206
D7
J2
S2
50
54
28

VA-104 -COMPONENT SIDE-

1-634-965-15
BVW-400A
BVW-400AP

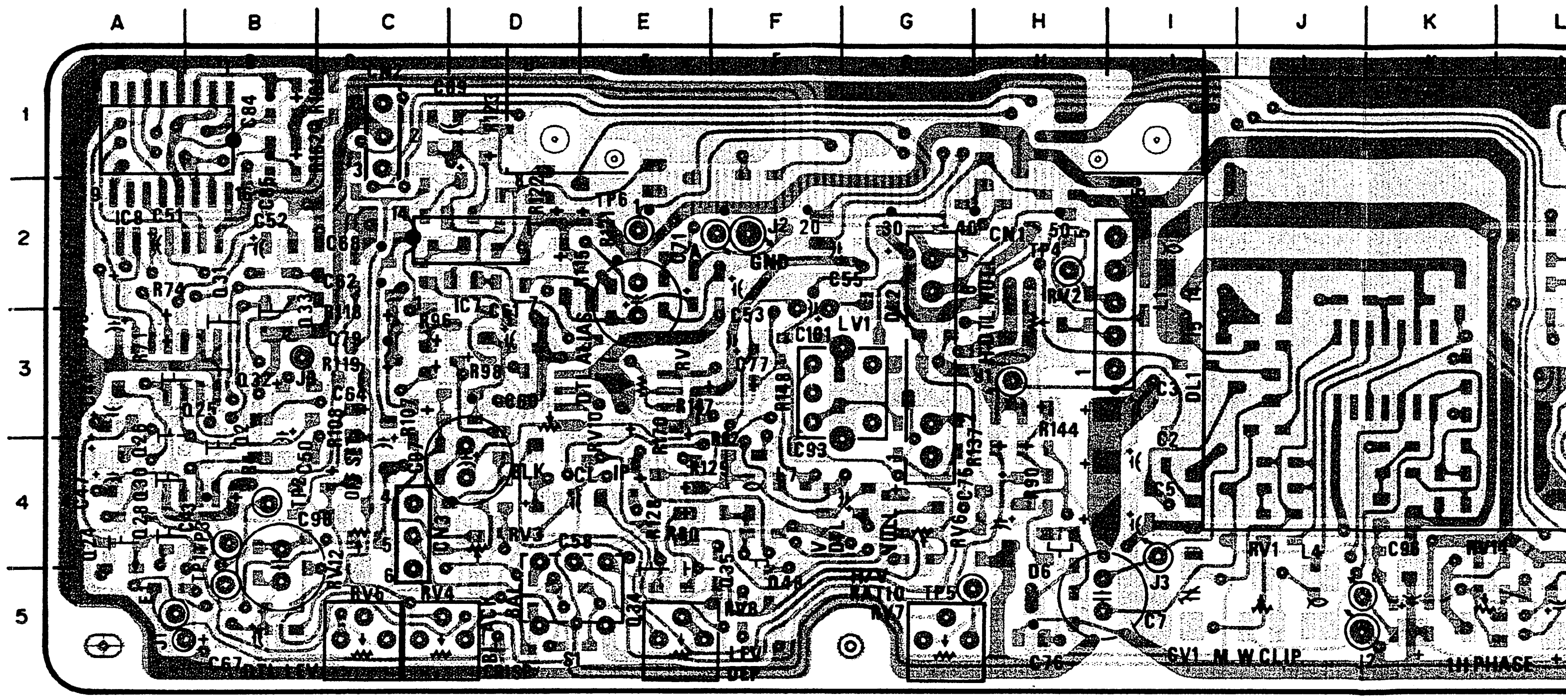

N
M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
VA-104
JAPAN
1-634-965-15
Q12
R47
R185
R184
Q51
R46
R132
R131
C116
R214
Q36
Q35
R141
R140
C69
R240
C82
C92
R193
R120
Q34
R129
R85
R86
C74
R87
R133
R83
C43
R192
C91
R125
C64
R123
R124
C29
C65
R37
R41
R40
C17
IC13
R207
R191
R42
R135
R44
R136
R134
R43
R38
R84
R89
R90
R88
R113
Q33
Q22
Q20
Q18
Q19
R108
R106
Q25
R100
Q23
Q26
D1
R93
R95
Q15
Q53
R62
R11
R16
R17
R18
R10
R21
R58
R2
R181
Q3
C30
C31
C48
C47
C56
R64
R66
D5
R61
Q14

VA-104 -SOLDERING SIDE-

1-634-965-15
BVW-400A
BVW-400AP

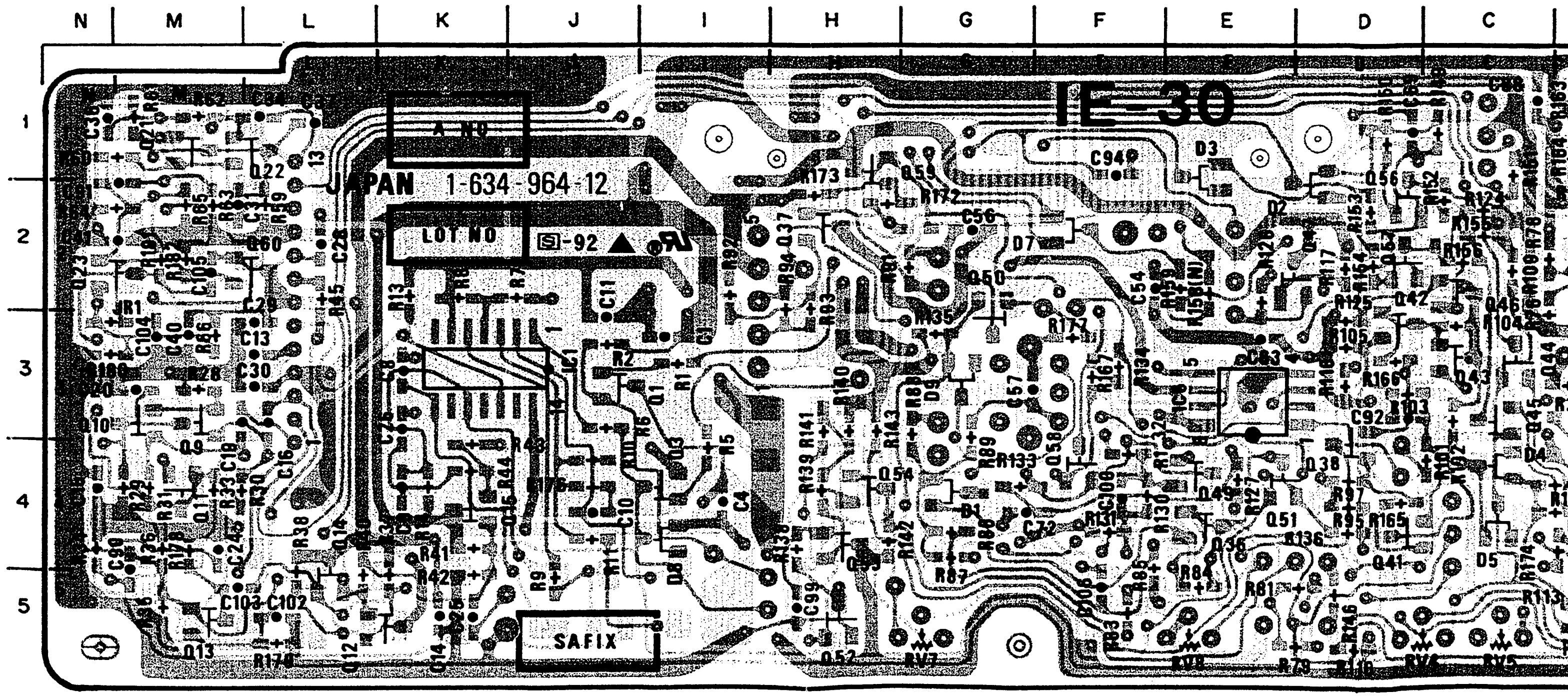
CN1	H-2
CV1	I-5
CV2	N-4
CV3	N-2
DL1	I-3
DL2	G-2
D1	G-4
D2	E-2
D3	E-1
D4	C-4
D5	C-4
D6	H-4
D7	G-2
D8	I-5
D9	G-3
E1	A-5
IC1	J-3
IC4	B-3
IC5	I-2
IC6	E-3
IC7	D-2
IC8	A-2
IC9	A-1
IC10	A-2
LV1	G-3
Q1	I-3
Q2	B-4
Q3	I-4
Q9	M-4
Q10	N-3
Q11	M-4
Q12	L-5
Q13	M-5
Q14	L-4
Q15	K-4
Q21	M-1
Q22	L-1
Q23	N-2
Q24	A-4
Q25	B-3
Q26	A-3
Q27	A-3
Q28	A-4
Q29	A-4
Q30	A-4
Q31	B-2
Q32	B-3
Q33	B-2
Q34	E-5
Q35	F-4
Q36	E-4
Q37	H-2
Q38	D-4
Q41	D-4
Q42	D-2
Q43	C-3
Q44	C-3
Q45	C-3
Q46	C-2
Q47	D-2
Q48	F-5
Q49	E-4
Q50	G-2
Q51	E-4
Q52	H-5
Q53	H-4
Q54	H-4
Q56	D-1
Q57	D-2
Q58	F-4
Q59	G-1
RV1	J-4
RV2	H-2
RV3	C-4
RV4	C-5
RV5	C-5
RV6	G-4
RV7	G-5
RV8	F-5
RV10	D-4
RV12	C-5
RV13	E-3
RV14	K-4
S1	D-5
TP1	B-5
TP2	B-4
TP3	B-4
TP4	H-2
TP5	G-5
TP6	E-2

IE-30P;IMAGE ENHANCE
IE-31:APERTURE


A
B
C
D
E
F
G
H
I
J
K
L
1
2
3
4
5
CN1
LV1
DL1
J3
RV1
RV2
RV4
RV6
CV1 M.W CLIP
H PHASE

IE-30/30P -

1-634-964-12
BVW-400A
BVW-400AP


N
M
L
K
J
I
H
G
F
E
D
C
1
2
3
4
5
IE-30
A NO
JAPAN 1-634-964-12
LOT NO
S-92
SAFIX

IE-30/30P -

1-634-964-12
BVW-400A
BVW-400AP

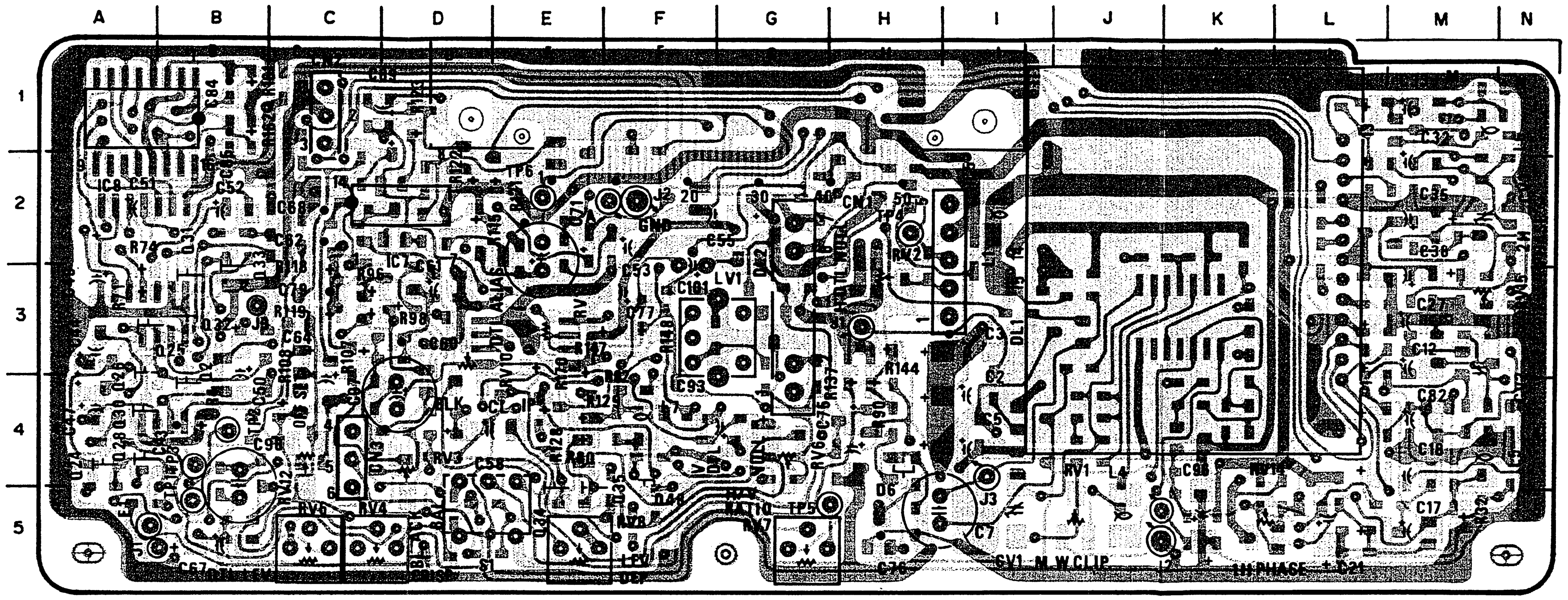
5
4
4
2
4
4
2
3
3
3
2
2
5
4
2
4
5
4
4
1
2
4
1

4
2
4
5
5
4
5
5
4
5
3
4

5

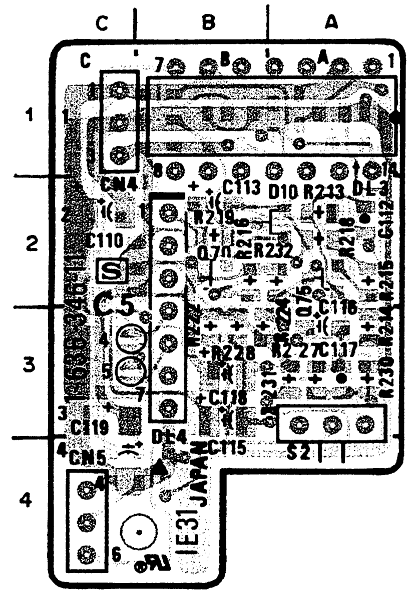
5
4
4
2
5
2

IE-30P;IMAGE ENHANCE
IE-31:APERTURE



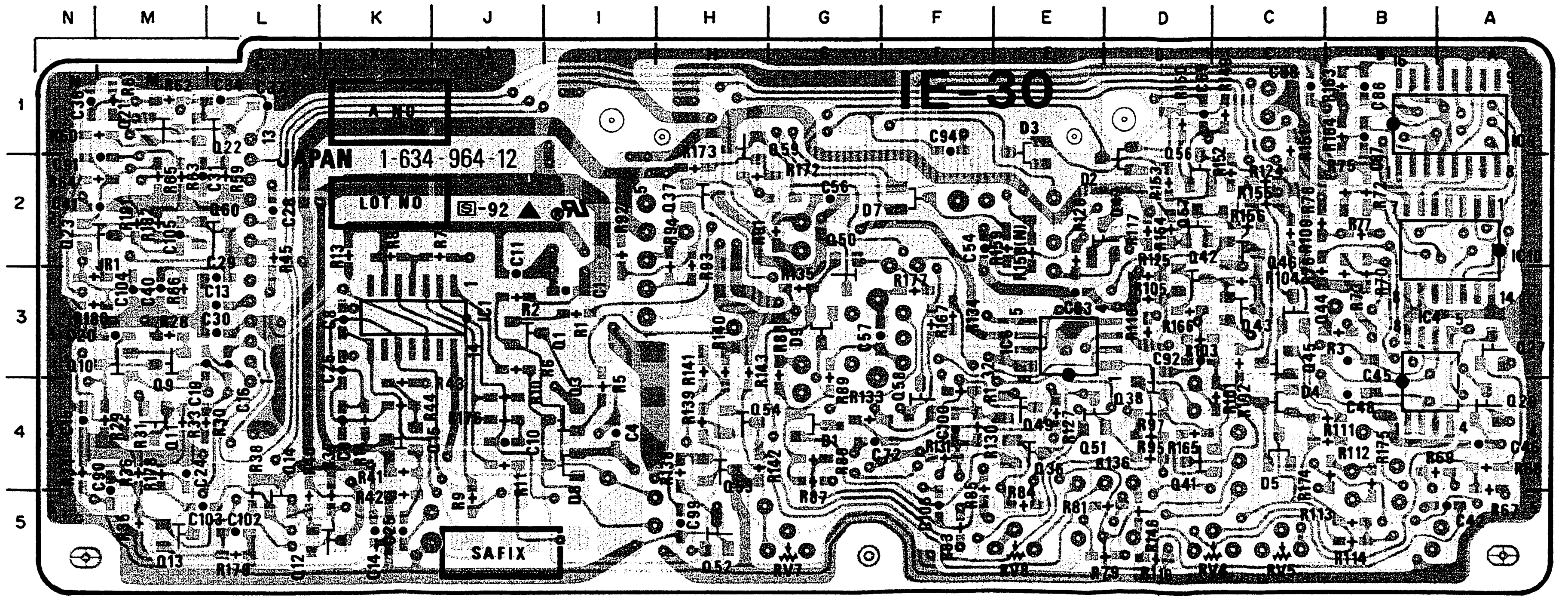
IE-30/30P -COMPONENT SIDE-

1-634-964-12
BVW-400A
BVW-400AP



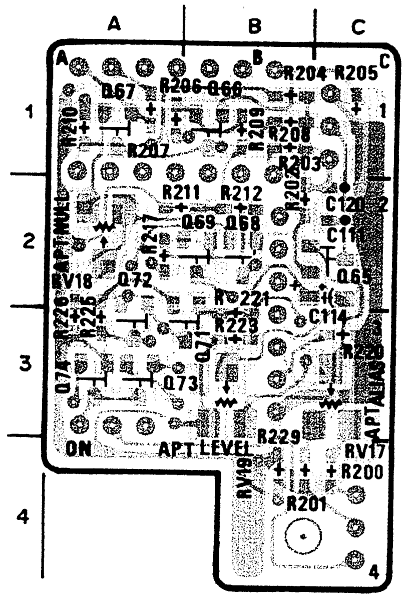
IE-31 -COMPONENT SIDE-

1-636-346-11
BVW-400A
BVW-400AP



IE-30/30P -SOLDERING SIDE-

1-634-964-12
BVW-400A
BVW-400AP



IE-31 -SOLDERING SIDE-

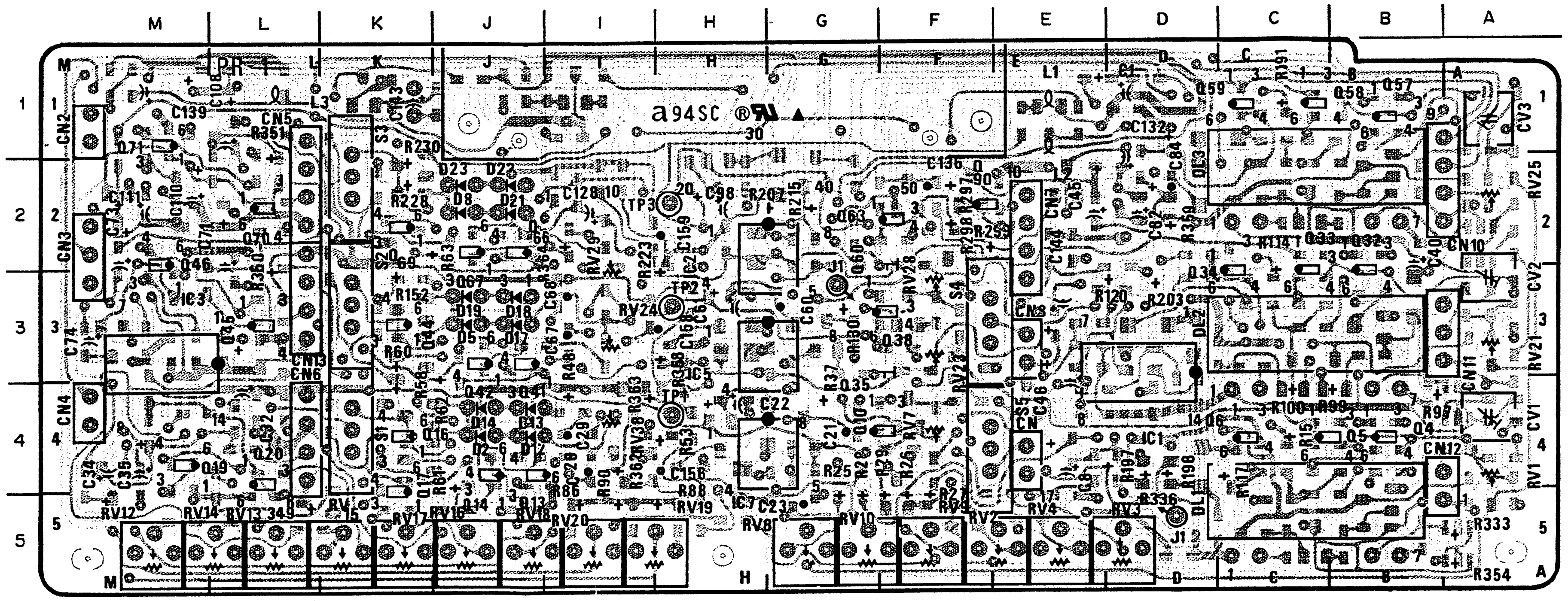
1-636-346-11
BVW-400A
BVW-400AP

PR-176,PR-177,PR-178 PR-176,PR-177,PR-178

S/N;40001 through 40360

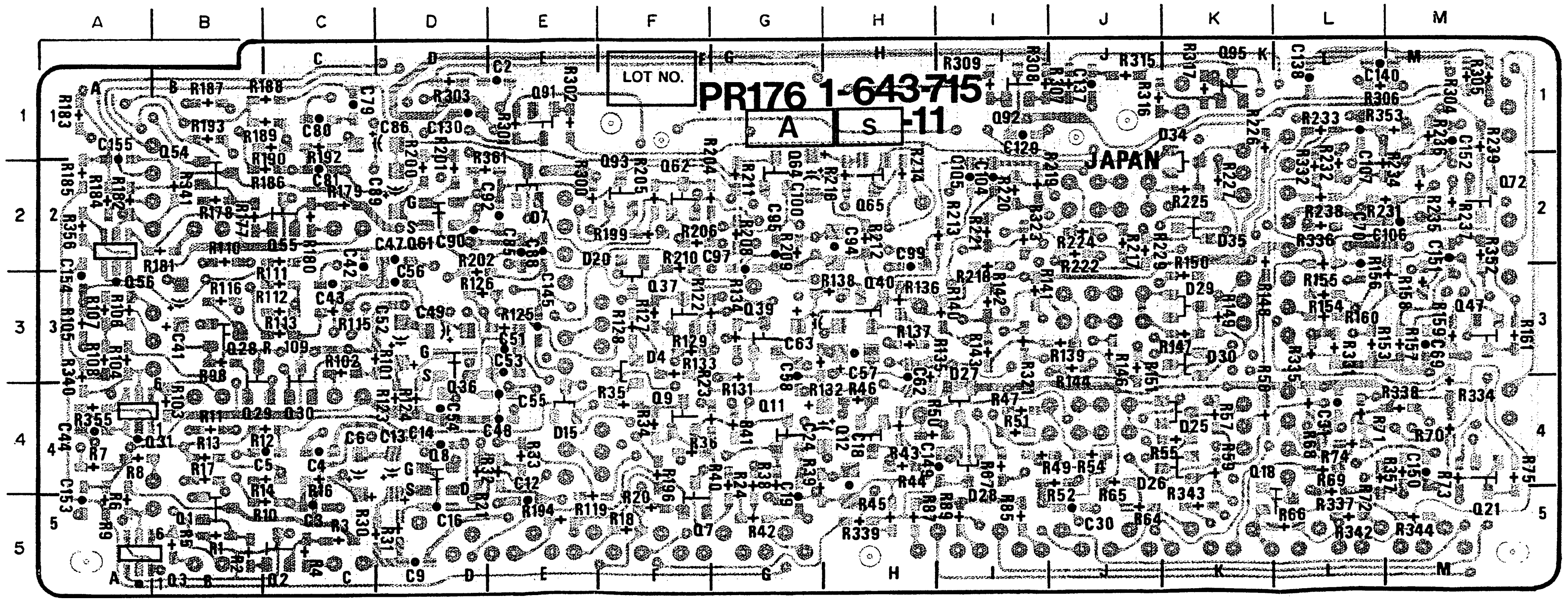
PR-176,PR-177,PR-178;GAMMA,MASKING,KNEE,SLOPE,W CLIP,DCC

CN2	M-1
CN3	M-2
CN4	M-4
CN5	L-1
CN6	L-3
CN7	E-2
CN8	E-3
CN10	A-2
CN11	A-4
CN12	B-4
CN13	L-3
CV1	A-4
CV2	A-3
CV3	A-1
DL1	D-5
DL2	D-3
DL3	D-2
D2	J-4
D4	F-3
D5	J-3
D7	E-2
D8	J-2
D12	J-4
D14	J-4
D15	E-4
D17	J-3
D18	J-3
D19	J-3
D20	E-2
D21	J-2
D22	J-2
D23	J-2
D25	K-4
D26	J-4
D27	I-3
D28	I-5
D29	K-3
D30	K-3
D34	K-1
D35	K-2
RV1	A-4
RV2	F-5
RV3	D-5
RV4	E-5
RV7	F-4
RV8	H-5
RV9	F-5
RV10	G-5
RV12	M-5
RV13	L-5
RV14	M-5
RV15	K-5
RV16	K-5
RV17	K-5
RV18	J-5
RV19	H-5
RV20	I-5
RV21	A-3
RV23	F-4
RV24	I-3
RV25	A-2
RV28	F-3
RV29	I-3
RV38	I-4
S1	K-4
S2	K-2
S3	K-1
S4	F-3
S5	E-4
L1	E-1
L3	L-1
TP1	H-4
TP2	H-3
TP3	I-2
IC1	D-4
IC2	H-3
IC3	M-1
IC5	H-3
IC7	H-5
Q1	B-5
Q2	C-5
Q3	B-5
Q4	B-4
Q5	B-4
Q6	D-4
Q7	F-5
Q8	D-4
Q9	F-4
Q10	G-4
Q11	G-4
Q12	H-4
Q13	J-5
Q14	J-5
Q16	K-4
Q17	K-5
Q18	K-4
Q19	M-4
Q20	L-4
Q21	M-5
Q22	H-4
Q28	B-3
Q29	B-4
Q30	C-4
Q31	A-4
Q32	B-2
Q33	C-2
Q34	D-3
Q35	G-4
Q36	D-4
Q37	F-3
Q38	F-3
Q39	G-3
Q40	H-3
Q41	J-4
Q42	J-4
Q44	K-3
Q45	L-3
Q46	M-2
Q47	M-3
Q54	B-1
Q55	C-2
Q56	A-2
Q57	B-1
Q58	B-1
Q59	D-1
Q60	G-3
Q61	D-2
Q62	F-2
Q63	G-2
Q64	G-1
Q65	H-2
Q66	J-2
Q67	J-3
Q69	K-2
Q70	L-2
Q71	M-1
Q72	M-2
Q91	E-1
Q92	I-1
Q93	F-2
Q95	K-1


M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
a94SC
CN2
CN3
CN4
CN5
CN6
CN10
CN11
CN12
CV1
CV2
CV3
RV25
RV21
RV1
TP1
TP2
TP3
J1
L1
L3
R333
R354

PR-176/176U -COMPONENT SIDE-

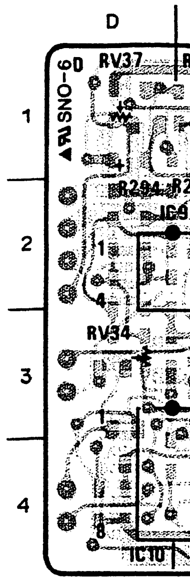
1-643-715-11
BVW-400A
BVW-400AP


A
B
C
D
E
F
G
H
I
J
K
L
M
1
2
3
4
5
LOT NO.
PR176 1-643-715
A
S
-11
JAPAN

PR-176/176U -SOLDERING SIDE-

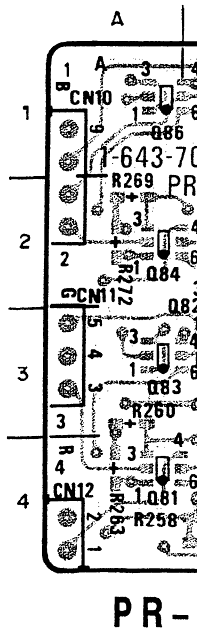
1-643-715-11
BVW-400A
BVW-400AP

CN7	D-1
CN8	D-3
CN9	D-4
CN10	A-1
CN11	A-2
CN12	A-3
D9	D-3
D10	C-4
D11	B-1
D24	D-3
D31	C-1
D36	C-4
IC10	D-4
Q79	B-4
Q80	B-4
Q81	A-4
Q82	A-2
Q83	A-3
Q84	A-2
Q86	A-1
Q87	C-4
Q88	C-1
Q89	D-1
Q96	C-1
RV30	A-3
RV31	B-2
RV32	A-1
RV33	B-1
RV34	D-3
RV35	C-3
RV36	C-1
RV37	D-1


D
1
2
3
4
RV37
RV34
IC10

PR-

1-643-7
BVW-400
BVW-400

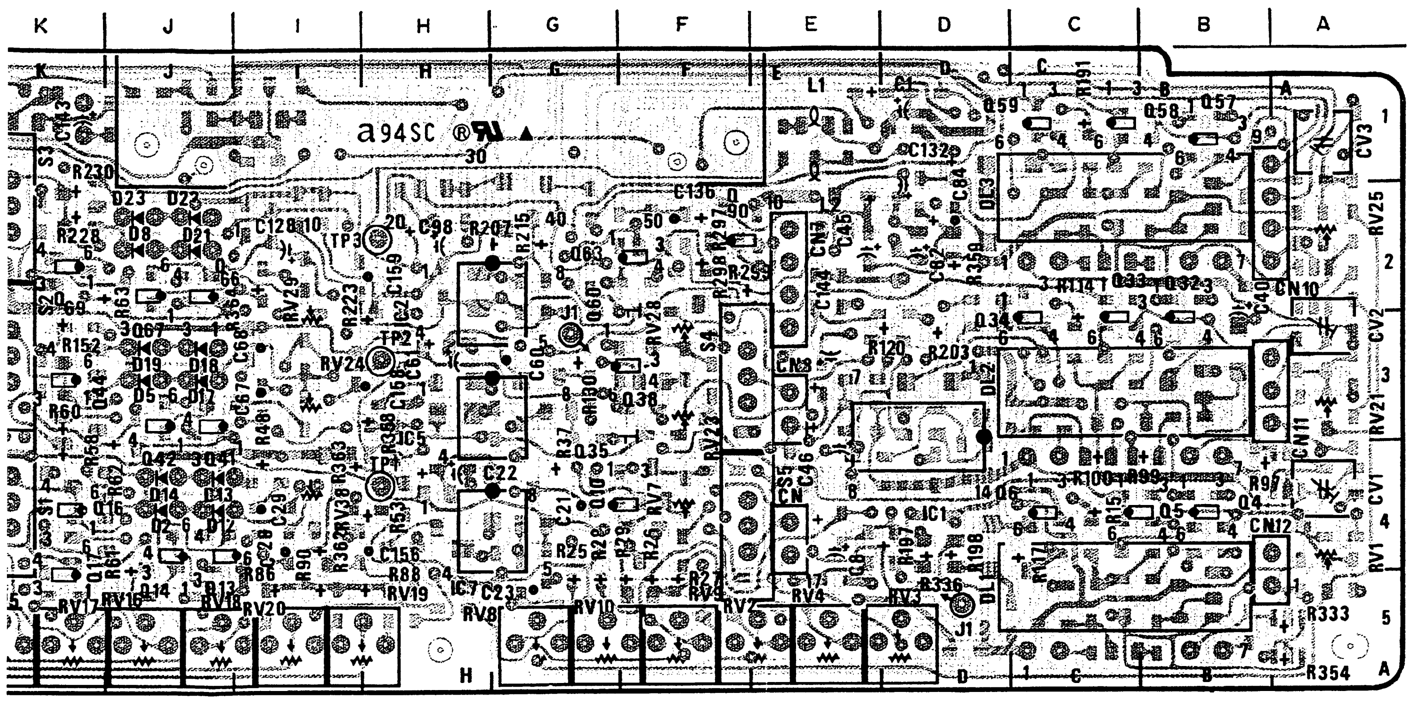

A
1
2
3
4
CN10
CN11
CN12
Q86
1-643-70
R269
Q84
Q83
Q81
R260
R258

PR-

1-643-7
BVW-400
BVW-400

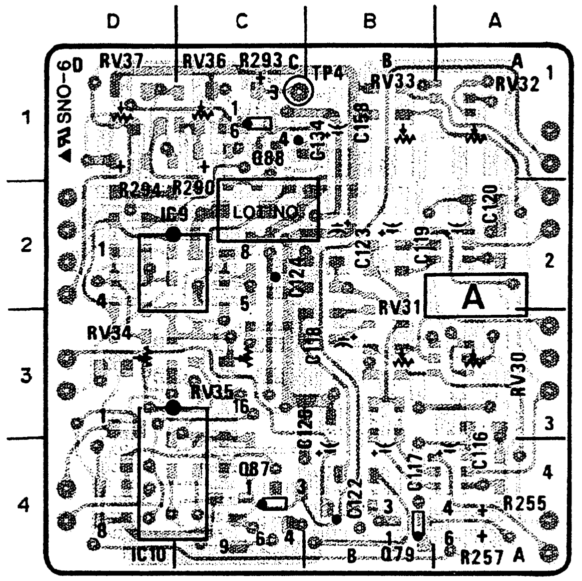
S/N;40001 through 40360

GAMMA,MASKING,KNEE,SLOPE,W CLIP,DCC



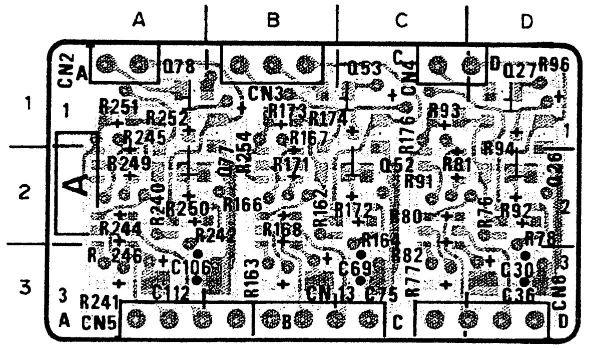
PR-176/176U -COMPONENT SIDE-
1-643-715-11
BVW-400A
BVW-400AP

CN7	D-1
CN8	D-3
CN9	D-4
CN10	A-1
CN11	A-2
CN12	A-3
D9	D-3
D10	C-4
D11	B-1
D24	D-3
D31	C-1
D36	C-4
IC10	D-4
Q79	B-4
Q80	B-4
Q81	A-4
Q82	A-2
Q83	A-3
Q84	A-2
Q86	A-1
Q87	C-4
Q88	C-1
Q89	D-1
Q96	C-1
RV30	A-3
RV31	B-2
RV32	A-1
RV33	B-1
RV34	D-3
RV35	C-3
RV36	C-1
RV37	D-1

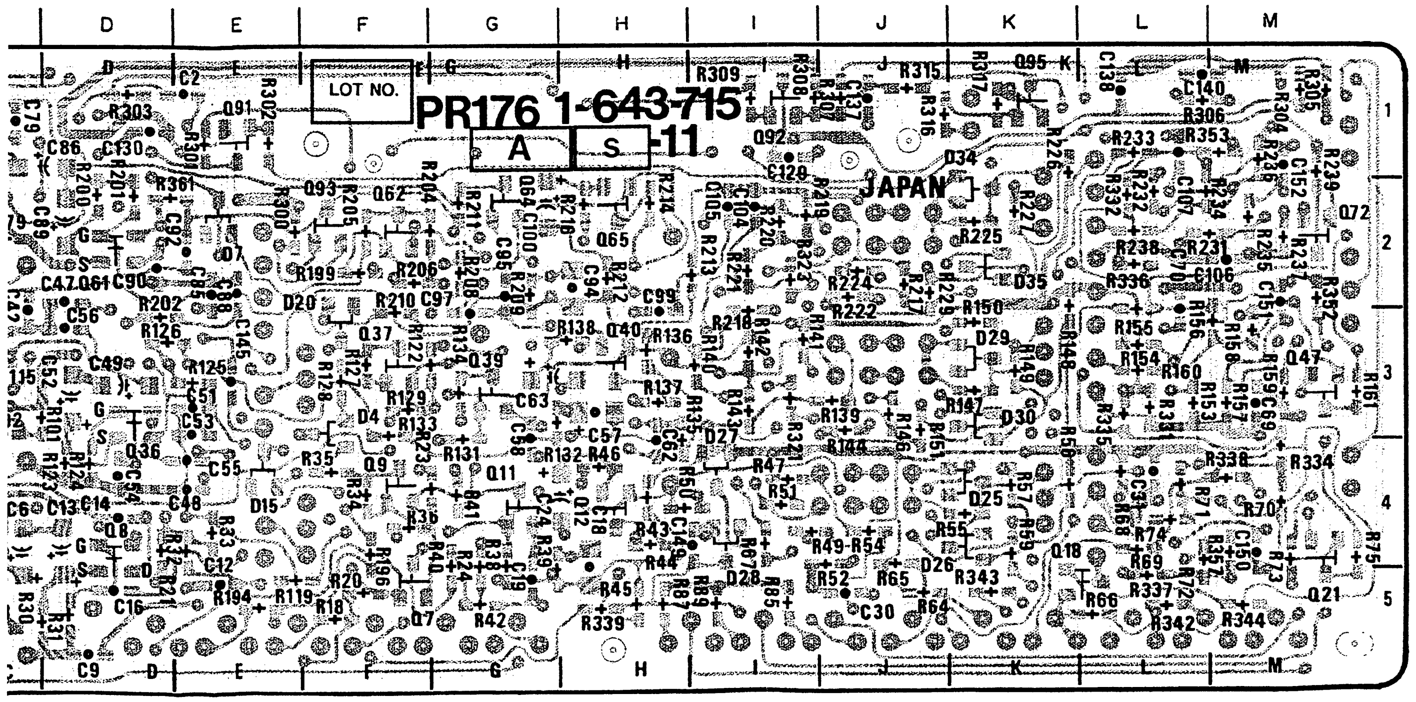


PR-177 -COMPONENT SIDE-
1-643-701-11
BVW-400A
BVW-400AP

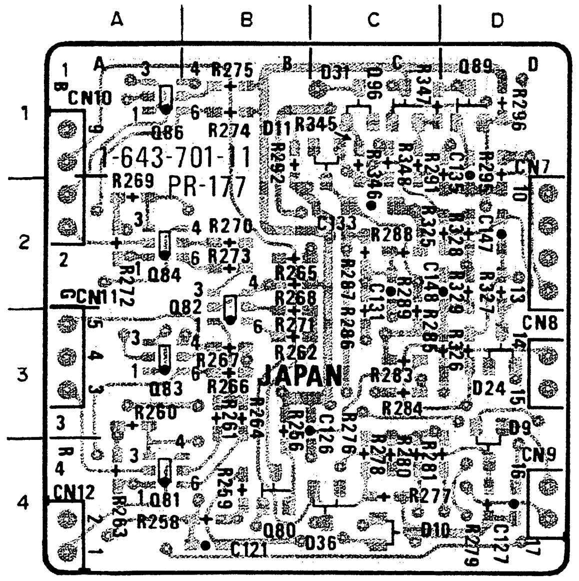
CN2	A-1
CN3	B-1
CN5	A-3
CN6	D-3
CN13	B-3
Q22	D-3
Q23	D-3
Q24	D-1
Q25	D-1
Q26	D-2
Q27	D-1
Q48	B-3
Q49	C-3
Q50	B-1
Q51	C-1
Q52	C-2
Q53	C-1
Q73	A-3
Q74	A-3
Q75	A-1
Q76	A-1
Q77	B-2
Q78	A-1



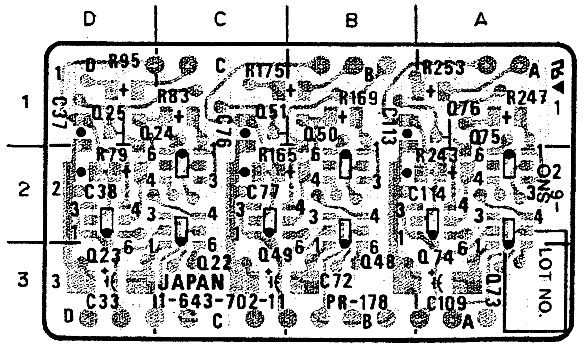
PR-178 -COMPONENT SIDE-
1-643-702-11
BVW-400A
BVW-400AP



PR-176/176U -SOLDERING SIDE-
1-643-715-11
BVW-400A
BVW-400AP



PR-177 -SOLDERING SIDE-
1-643-701-11
BVW-400A
BVW-400AP

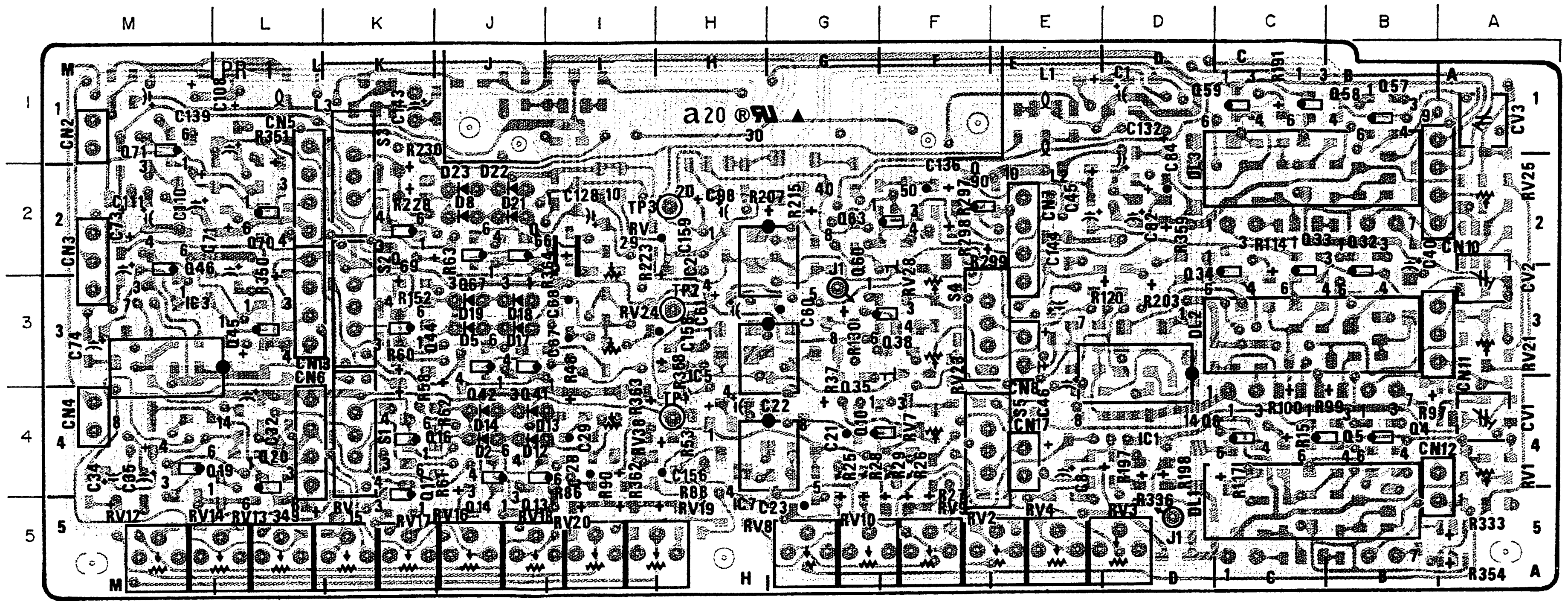


PR-178 -SOLDERING SIDE-
1-643-702-11
BVW-400A
BVW-400AP

S/N;40361 and higher

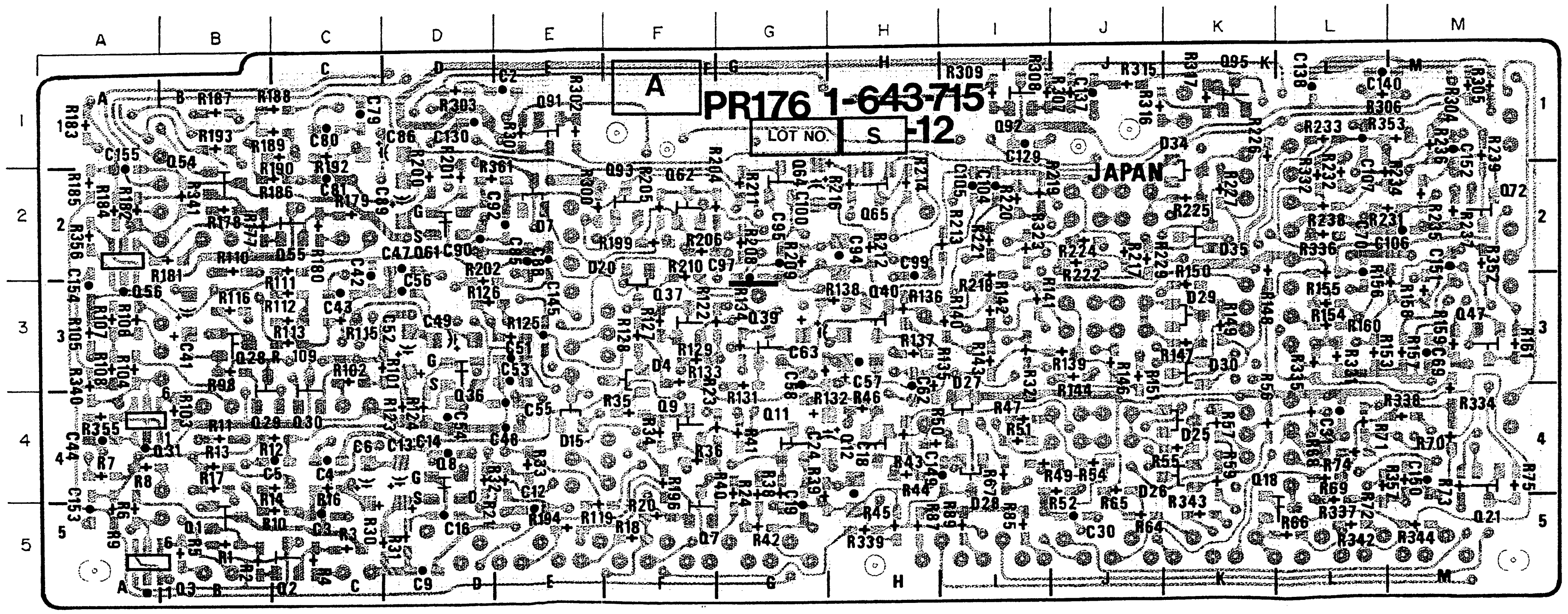
PR-176,PR-177,PR-178;GAMMA,MASKING,KNEE,SLOPE,W CLIP,DCC

CN2	M-1
CN3	M-2
CN4	M-4
CN5	L-1
CN6	L-3
CN7	E-2
CN8	E-3
CN10	A-2
CN11	A-4
CN12	B-4
CN13	L-3
CV1	A-4
CV2	A-3
CV3	A-1
DL1	D-5
DL2	D-3
DL3	D-2
D2	J-4
D4	F-3
D5	J-3
D7	E-2
D8	J-2
D12	J-4
D14	J-4
D15	E-4
D17	J-3
D18	J-3
D19	J-3
D20	E-2
D21	J-2
D22	J-2
D23	J-2
D25	K-4
D26	J-4
D27	I-3
D28	I-5
D29	K-3
D30	K-3
D34	K-1
D35	K-2
RV1	A-4
RV2	F-5
RV3	D-5
RV4	E-5
RV7	F-4
RV8	H-5
RV9	F-5
RV10	G-5
RV12	M-5
RV13	L-5
RV14	M-5
RV15	K-5
RV16	K-5
RV17	K-5
RV18	J-5
RV19	H-5
RV20	I-5
RV21	A-3
RV23	F-4
RV24	I-3
RV25	A-2
RV28	F-3
RV29	I-3
RV38	I-4
S1	K-4
S2	K-2
S3	K-1
S4	F-3
S5	E-4
L1	E-1
L3	L-1
TP1	H-4
TP2	H-3
TP3	I-2
IC1	D-4
IC2	H-3
IC3	M-1
IC5	H-3
IC7	H-5
Q1	B-5
Q2	C-5
Q3	B-5
Q4	B-4
Q5	B-4
Q6	D-4
Q7	F-5
Q8	D-4
Q9	F-4
Q10	G-4
Q11	G-4
Q12	H-4
Q13	J-5
Q14	J-5
Q16	K-4
Q17	K-5
Q18	K-4
Q19	M-4
Q20	L-4
Q21	M-5
Q22	H-4
Q28	B-3
Q29	B-4
Q30	C-4
Q31	A-4
Q32	B-2
Q33	C-2
Q34	D-3
Q35	G-4
Q36	D-4
Q37	F-3
Q38	F-3
Q39	G-3
Q40	H-3
Q41	J-4
Q42	J-4
Q44	K-3
Q45	L-3
Q46	M-2
Q47	M-3
Q54	B-1
Q55	C-2
Q56	A-2
Q57	B-1
Q58	B-1
Q59	D-1
Q60	G-3
Q61	D-2
Q62	F-2
Q63	G-2
Q64	G-1
Q65	H-2
Q66	J-2
Q67	J-3
Q69	K-2
Q70	L-2
Q71	M-1
Q72	M-2
Q91	E-1
Q92	I-1
Q93	F-2
Q95	K-1


M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
a20
CN2
CN3
CN4
CN10
CN12
IC1
RV1
RV21
RV25
CV1
CV2
CV3
J1
R333
R354

PR-176/176U -COMPONENT SIDE-

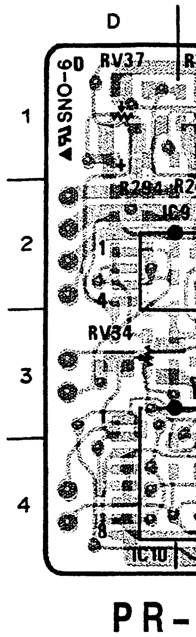
1-643-715-12
BVW-400A
BVW-400AP


A
B
C
D
E
F
G
H
I
J
K
L
M
1
2
3
4
5
A
PR176 1-643-715
LOT NO.
S
-12
JAPAN

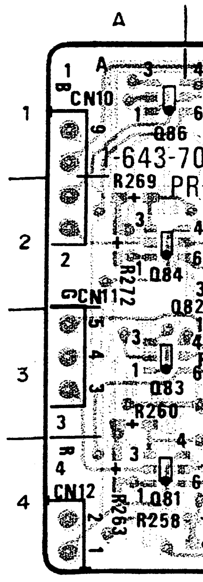
PR-176/176U -SOLDERING SIDE-

1-643-715-12
BVW-400A
BVW-400AP

CN7	D-1
CN8	D-3
CN9	D-4
CN10	A-1
CN11	A-2
CN12	A-3
D9	D-3
D10	C-4
D11	B-1
D24	D-3
D31	C-1
D36	C-4
IC10	D-4
Q79	B-4
Q80	B-4
Q81	A-4
Q82	A-2
Q83	A-3
Q84	A-2
Q86	A-1
Q87	C-4
Q88	C-1
Q89	D-1
Q96	C-1
RV30	A-3
RV31	B-2
RV32	A-1
RV33	B-1
RV34	D-3
RV35	C-3
RV36	C-1
RV37	D-1


D
1
2
3
4
RV37
RV34
IC9
IC10

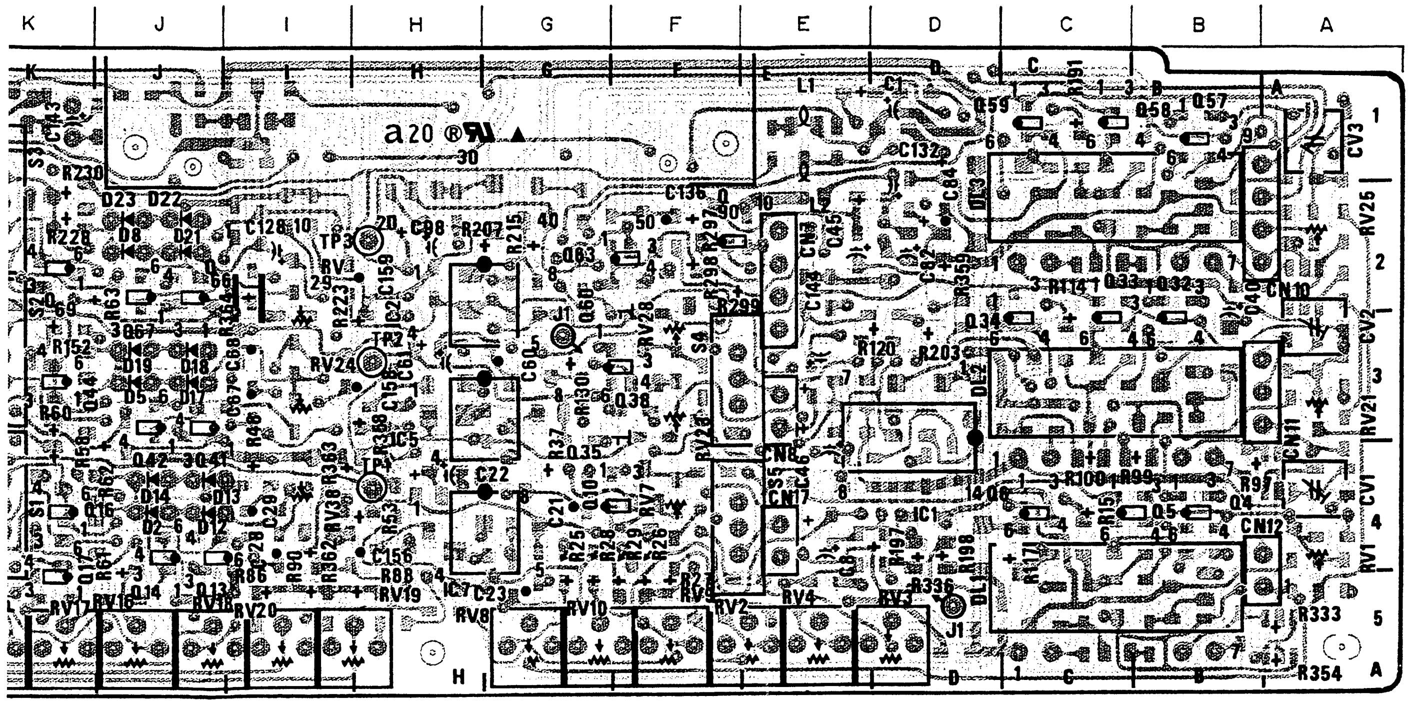
PR-
1-643-7
BVW-400
BVW-400


A
1
2
3
4
CN10
Q86
1-643-70
R269
PR
CN11
Q84
Q83
R260
CN12
Q81
R258

PR-
1-643-7(
BVW-400/
BVW-400/

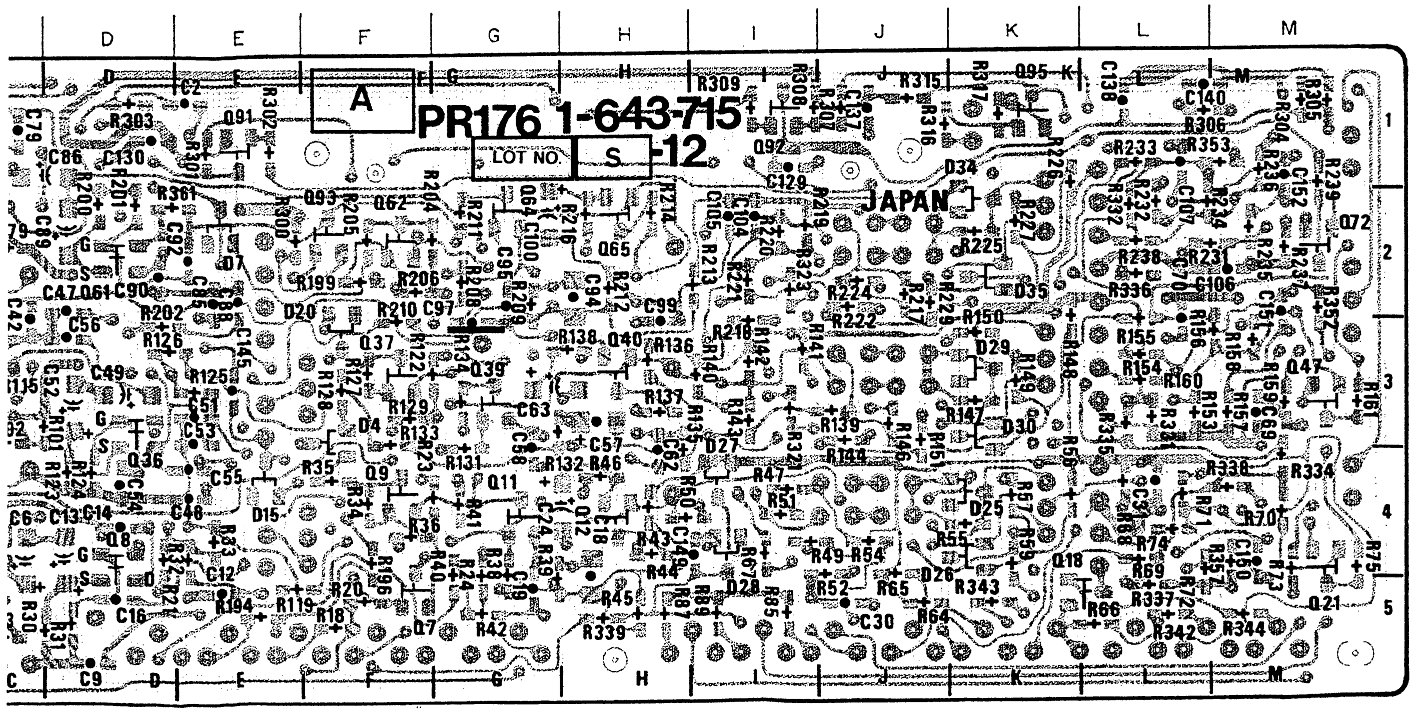
S/N;40361 and higher

AMMA,MASKING,KNEE,SLOPE,W CLIP,DCC


K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5

PR-176/176U -COMPONENT SIDE-

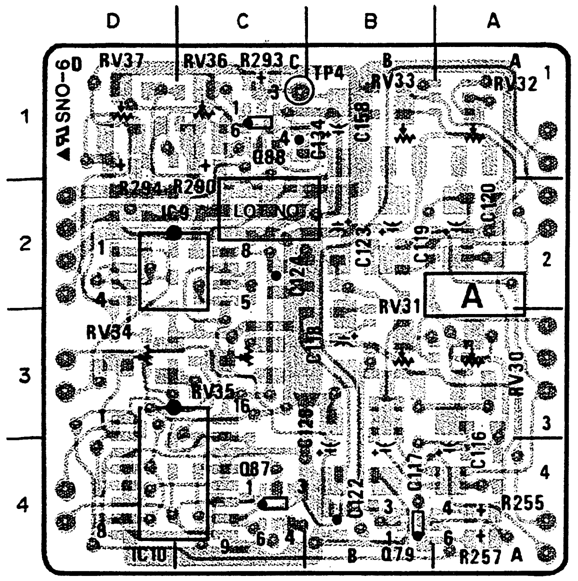
1-643-715-12
BVW-400A
BVW-400AP


D
E
F
G
H
I
J
K
L
M
A
PR176 1-643-715
LOT NO.
S
-12
JAPAN
1
2
3
4
5

PR-176/176U -SOLDERING SIDE-

1-643-715-12
BVW-400A
BVW-400AP

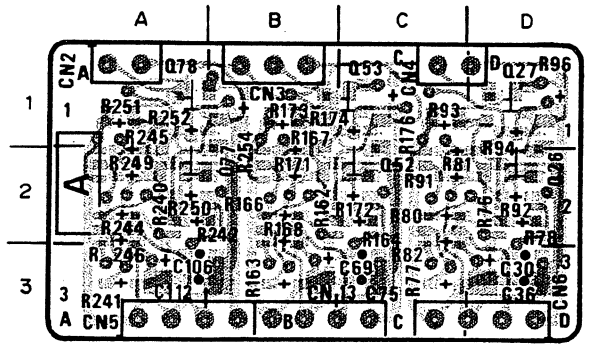
CN7	D-1
CN8	D-3
CN9	D-4
CN10	A-1
CN11	A-2
CN12	A-3
D9	D-3
D10	C-4
D11	B-1
D24	D-3
D31	C-1
D36	C-4
IC10	D-4
Q79	B-4
Q80	B-4
Q81	A-4
Q82	A-2
Q83	A-3
Q84	A-2
Q86	A-1
Q87	C-4
Q88	C-1
Q89	D-1
Q96	C-1
RV30	A-3
RV31	B-2
RV32	A-1
RV33	B-1
RV34	D-3
RV35	C-3
RV36	C-1
RV37	D-1



PR-177 -COMPONENT SIDE-

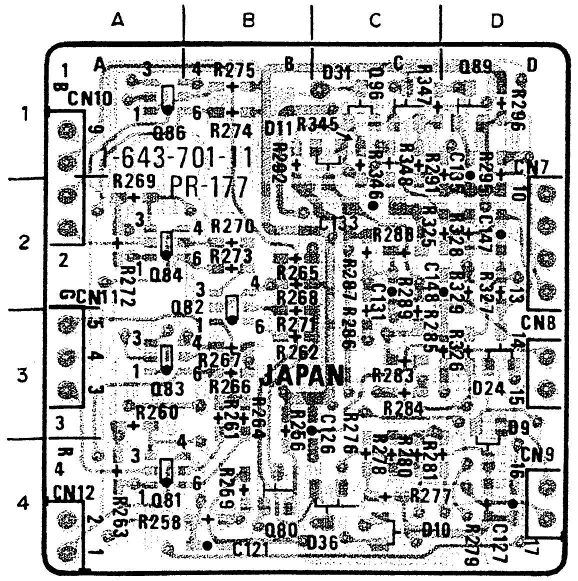
1-643-701-11
BVW-400A
BVW-400AP

CN2	A-1
CN3	B-1
CN5	A-3
CN6	D-3
CN13	B-3
Q22	D-3
Q23	D-3
Q24	D-1
Q25	D-1
Q26	D-2
Q27	D-1
Q48	B-3
Q49	C-3
Q50	B-1
Q51	C-1
Q52	C-2
Q53	C-1
Q73	A-3
Q74	A-3
Q75	A-1
Q76	A-1
Q77	B-2
Q78	A-1



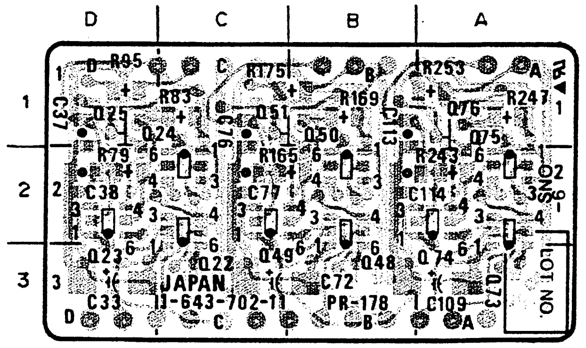
PR-178 -COMPONENT SIDE-

1-643-702-11
BVW-400A
BVW-400AP


A
B
C
D
1
2
3
4
1-643-701-11
PR-177
JAPAN

PR-177 -SOLDERING SIDE-

1-643-701-11
BVW-400A
BVW-400AP

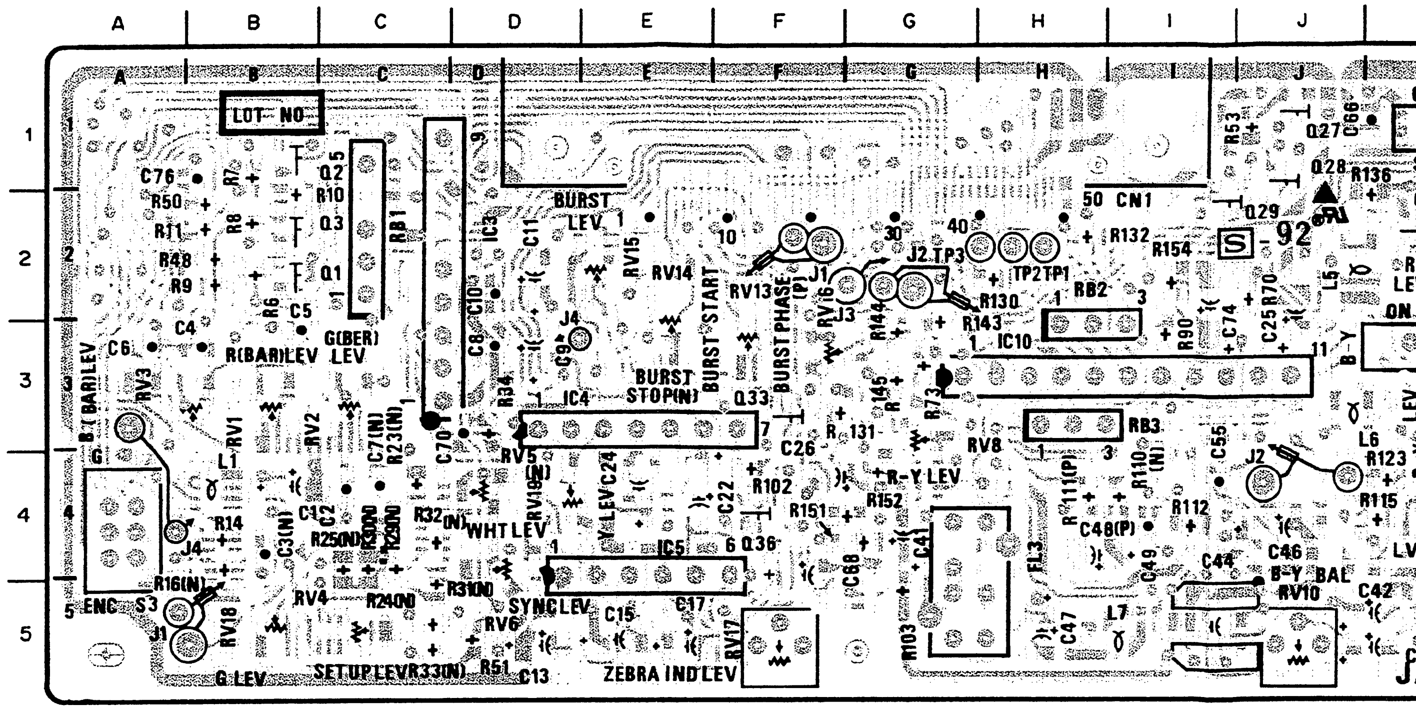

D
C
B
A
1
2
3
JAPAN
1-643-702-11
PR-178
LOT NO.

PR-178 -SOLDERING SIDE-

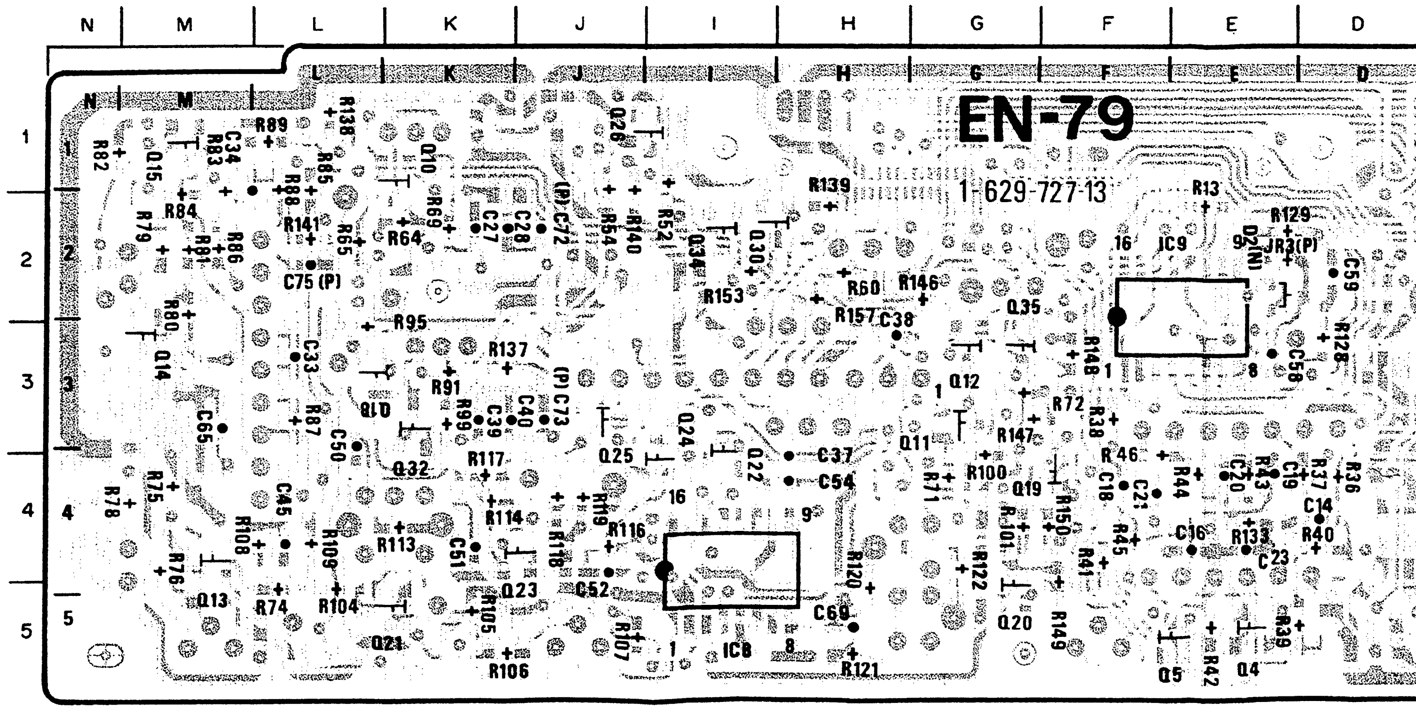
1-643-702-11
BVW-400A
BVW-400AP

EN-79P;Y/R-Y/B-Y SIGNAL GEN,ENCODER,CB GEN

CN1	I-2	RB1	C-2
		RB2	H-2
CV1	N-1	RB3	I-3
DL1	N-3	RV1	B-3
		RV2	B-3
D2	E-2	RV3	A-3
		RV4	B-5
E1	L-2	RV5	D-4
		RV6	D-5
FL3	H-4	RV8	H-3
		RV9	L-5
IC1	B-2	RV10	J-5
IC2	C-5	RV11	M-2
IC3	D-2	RV12	L-1
IC4	D-3	RV13	F-2
IC5	E-4	RV14	E-2
IC7	L-3	RV15	E-2
IC8	I-5	RV17	F-5
IC9	E-2	RV18	B-5
IC10	H-3	RV19	D-4
		RV20	K-1
LV2	K-4	RV21	K-4
Q1	C-2	S1	K-1
Q2	C-1	S2	L-3
Q3	C-2	S3	A-5
Q4	E-5		
Q5	E-5	TP1	H-2
Q10	K-1	TP2	H-2
Q11	G-3	TP3	G-2
Q12	G-3	TP4	L-5
Q13	M-4	TP5	K-5
Q14	M-3	TP6	L-3
Q15	M-1	TP7	N-3
Q18	L-3		
Q19	F-4		
Q20	G-5		
Q21	K-4		
Q22	I-4		
Q23	J-5		
Q24	I-3		
Q25	J-4		
Q26	J-1		
Q27	J-1		
Q28	J-1		
Q29	J-2		
Q30	I-2		
Q31	K-2		
Q32	K-4		
Q33	F-3		
Q34	I-2		
Q35	G-2		
Q36	F-4		

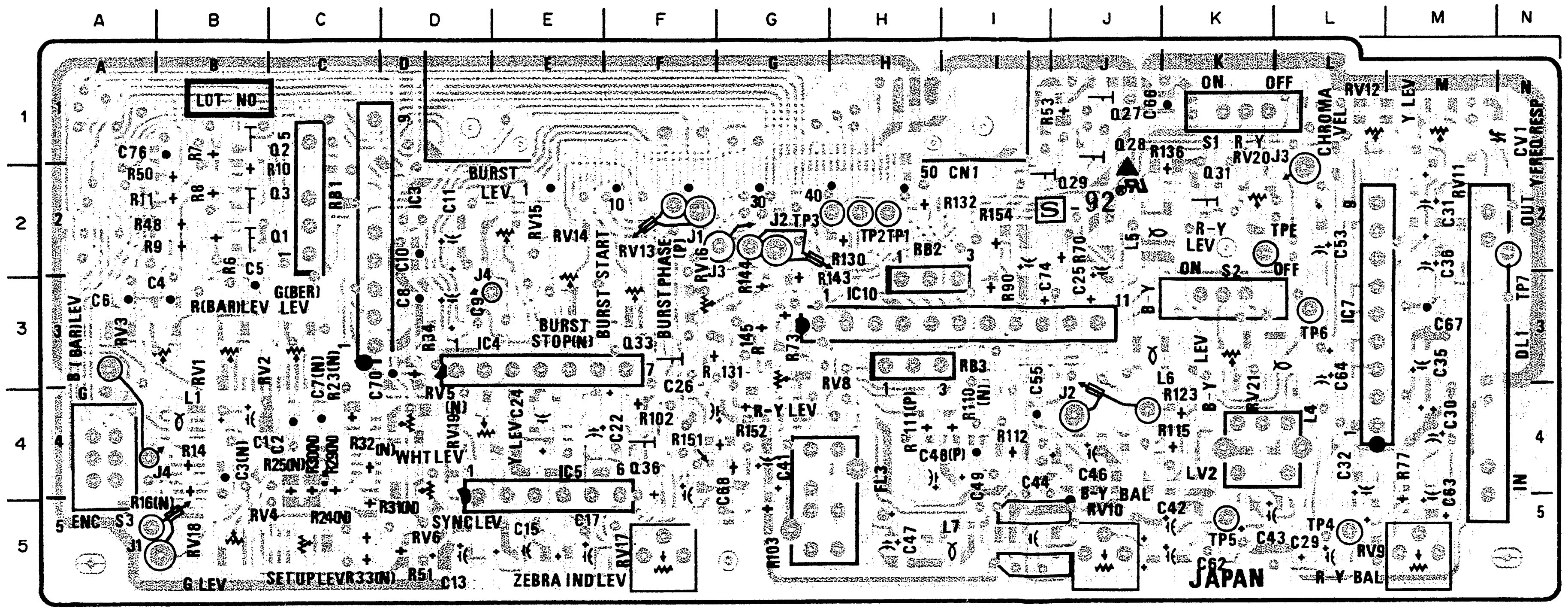

A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
LOT NO
BURST LEV
BURST STOP(N)
BURST START
BURST PHASE
R(BAR)LEV
G(BER) LEV
B(BAR)LEV
WHT LEV
Y LEV
R-Y LEV
B-Y BAL
SYNC LEV
SETUP LEV
ZEBRA IND LEV
G LEV
ENC
50 CN1
IC10
IC4
IC5
RB1
RB2
RB3
TP2 TP1
J2 TP3

EN-79/79U
1-629-727-14
BVW-400A
BVW-400AP


N
M
L
K
J
I
H
G
F
E
D
1
2
3
4
5
EN-79
1-629-727-13
IC9
IC8

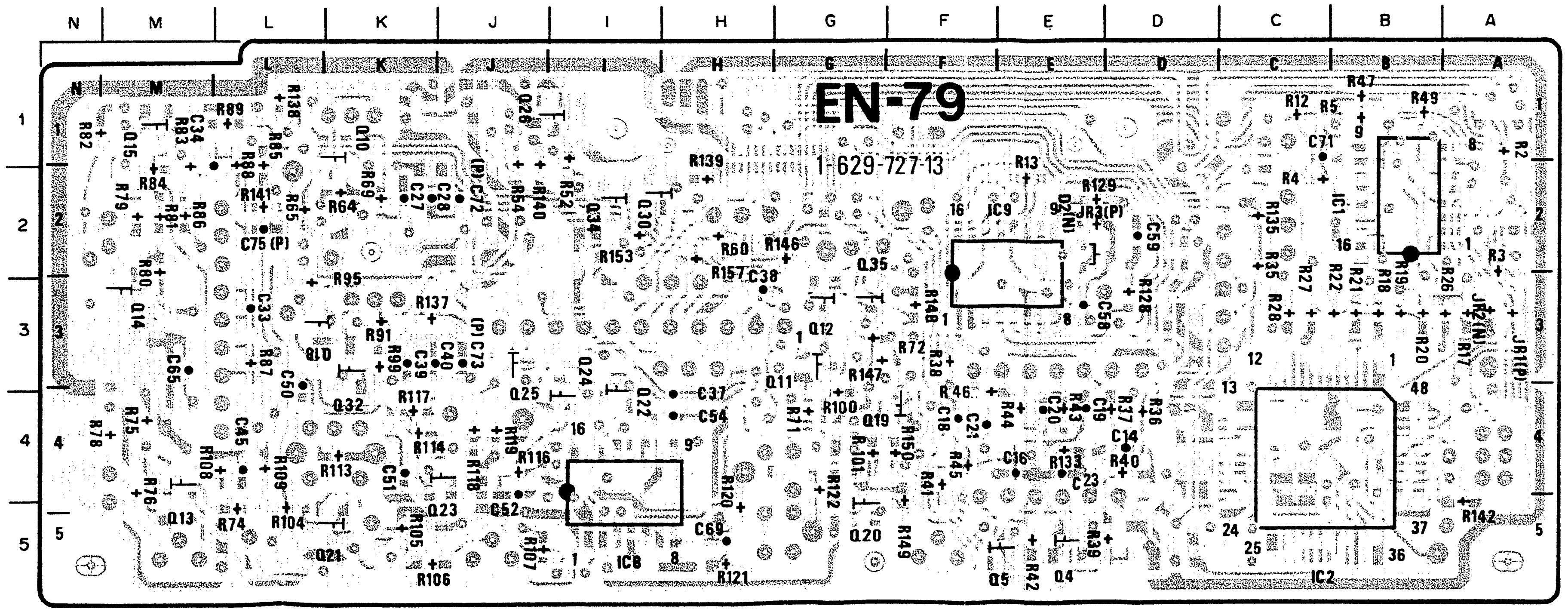
EN-79/79U
1-629-727-14
BVW-400A
BVW-400AP

EN-79P;Y/R-Y/B-Y SIGNAL GEN,ENCODER,CB GEN


A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
LOT NO.
BURST LEV
BURST STOP(N)
BURST START
BURST PHASE(P)
50 CN1
ON OFF
CHROMA VEL
Y LEV
VIDEO RESP
R-Y LEV
B-Y LEV
R-Y LEV
WHT LEV
SYNC LEV
SET UP LEV
ZEBRA IND LEV
G LEV
B BAR LEV
R(BAR) LEV
G(BER) LEV
B-Y BAL
R-Y BAL
OUT
IN
ENC
JAPAN
IC4
IC5
IC7
IC10
DL1
CV1

EN-79/79U/79P -COMPONENT SIDE-

1-629-727-14
BVW-400A
BVW-400AP


N
M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
EN-79
1-629-727-13
IC1
IC2
IC8
IC9

EN-79/79U/79P -SOLDERING SIDE-

1-629-727-14
BVW-400A
BVW-400AP

SG-152AP BOARD

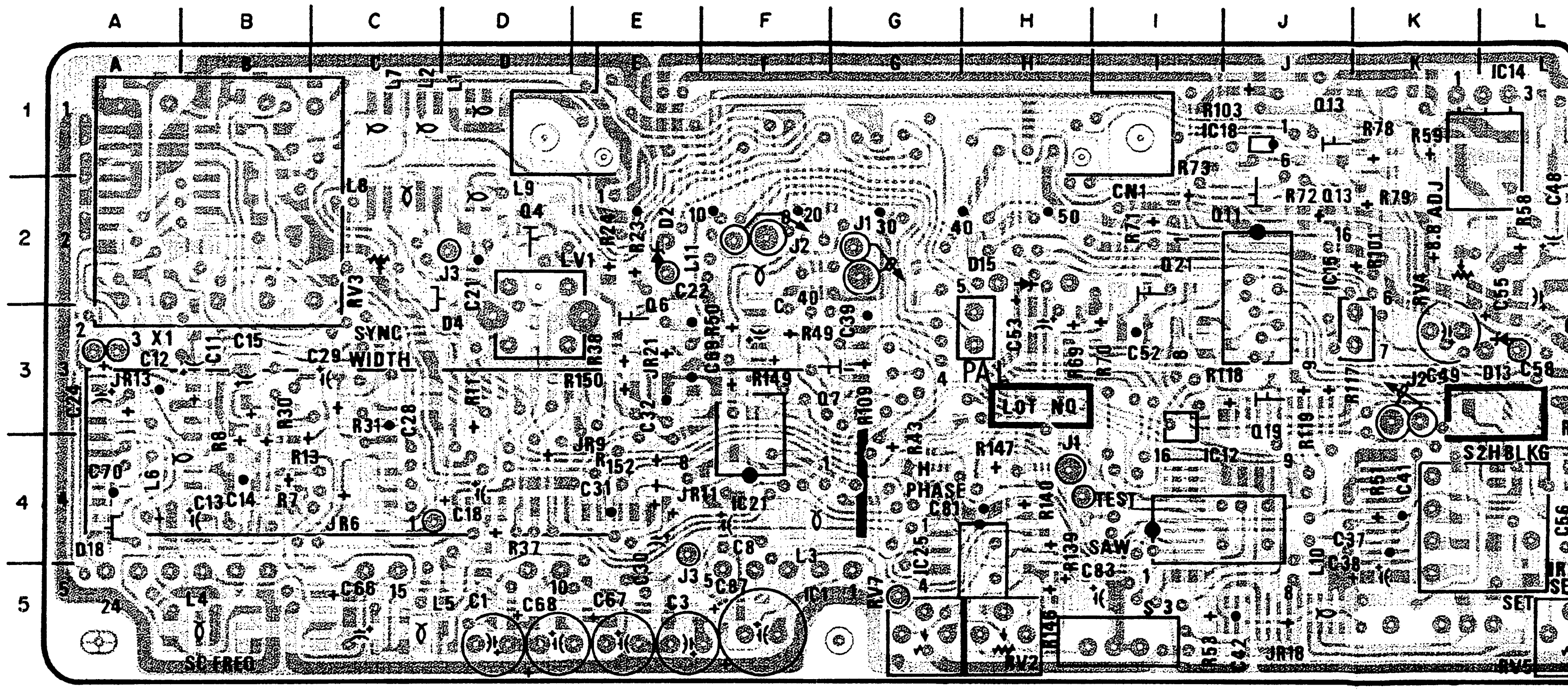
SERIAL NO.40001 - 40360

SG-152BP BOARD

SERIAL NO.40361 and higher

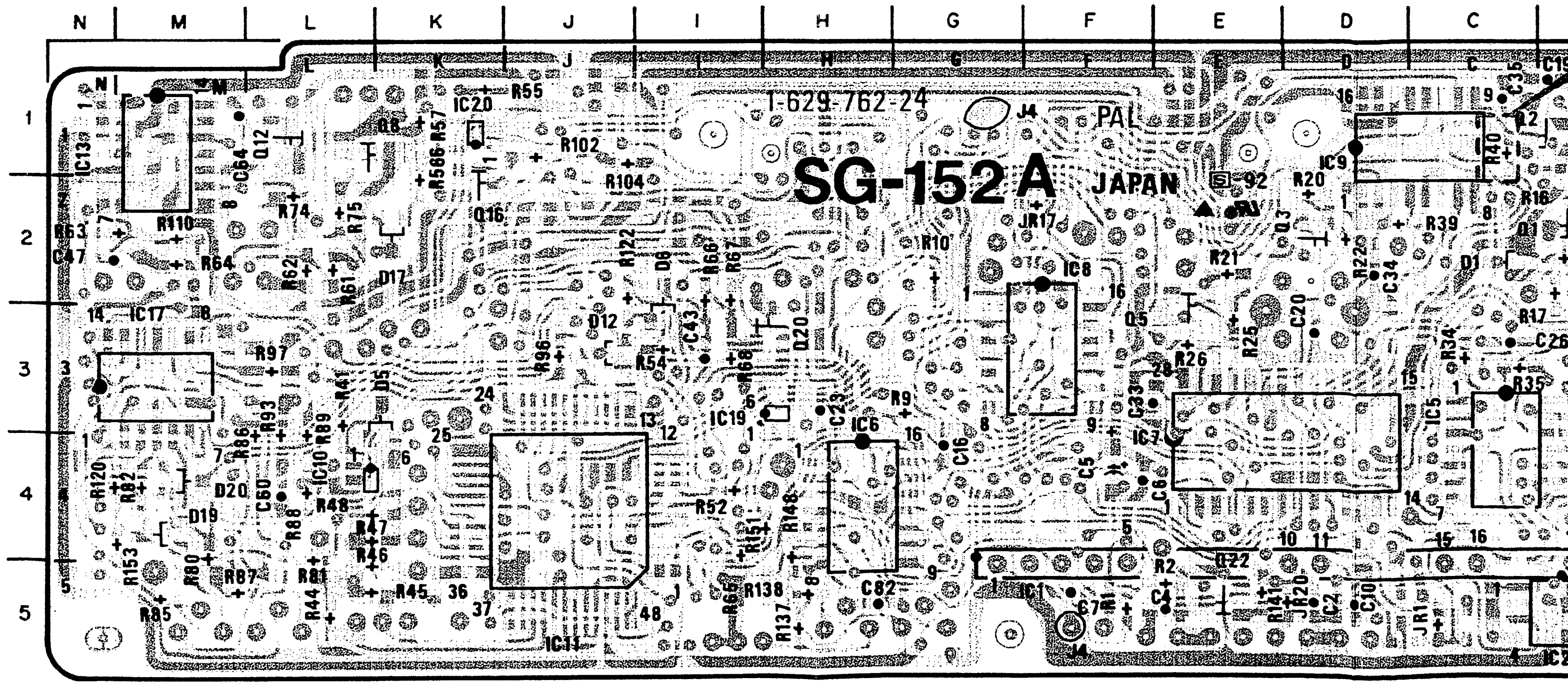
CN1	I-2
D1	C-2
D2	E-2
D3	A-3
D4	D-3
D5	K-3
D6	I-2
D9	N-2
D10	M-4
D11	M-3
D12	J-3
D13	L-3
D15	H-2
D16	M-2
D17	K-2
D18	A-4
E1	M-4
IC1	F-5
IC2	B-5
IC3	A-4
IC4	B-2
IC5	C-3
IC6	H-4
IC7	F-4
IC8	F-2
IC9	D-1
IC10	L-4
IC11	J-5
IC12	I-4
IC13	N-1
IC14	L-1
IC15	J-2
IC17	M-3
IC18	I-1
IC19	I-3
IC20	K-1
IC25	G-4
LV1	D-2
Q1	C-2
Q2	C-1
Q3	D-2
Q4	D-2
Q5	F-3
Q6	E-3
Q7	F-3
Q8	K-1
Q9	N-2
Q10	N-1
Q11	J-2
Q12	L-1
Q13	J-1
Q16	K-2
Q19	J-3
Q20	H-3
Q21	I-2
Q22	E-5
RV1	C-5
RV2	H-5
RV3	C-2
RV4	K-4
RV5	L-5
RV6	M-5
RV7	G-5
S2	K-4
S3	I-5
X1	A-2

SG-152AP;SYNC GEN
SG-157P;SC PHASE


A
B
C
D
E
F
G
H
I
J
K
L
1
2
3
4
5
SYNC WIDTH
SC FREQ
H PHASE
TEST
SAW
LOT NO
PAL
S2H BLKG
SET
CN1
IC14
LV1

SG-152AP -S

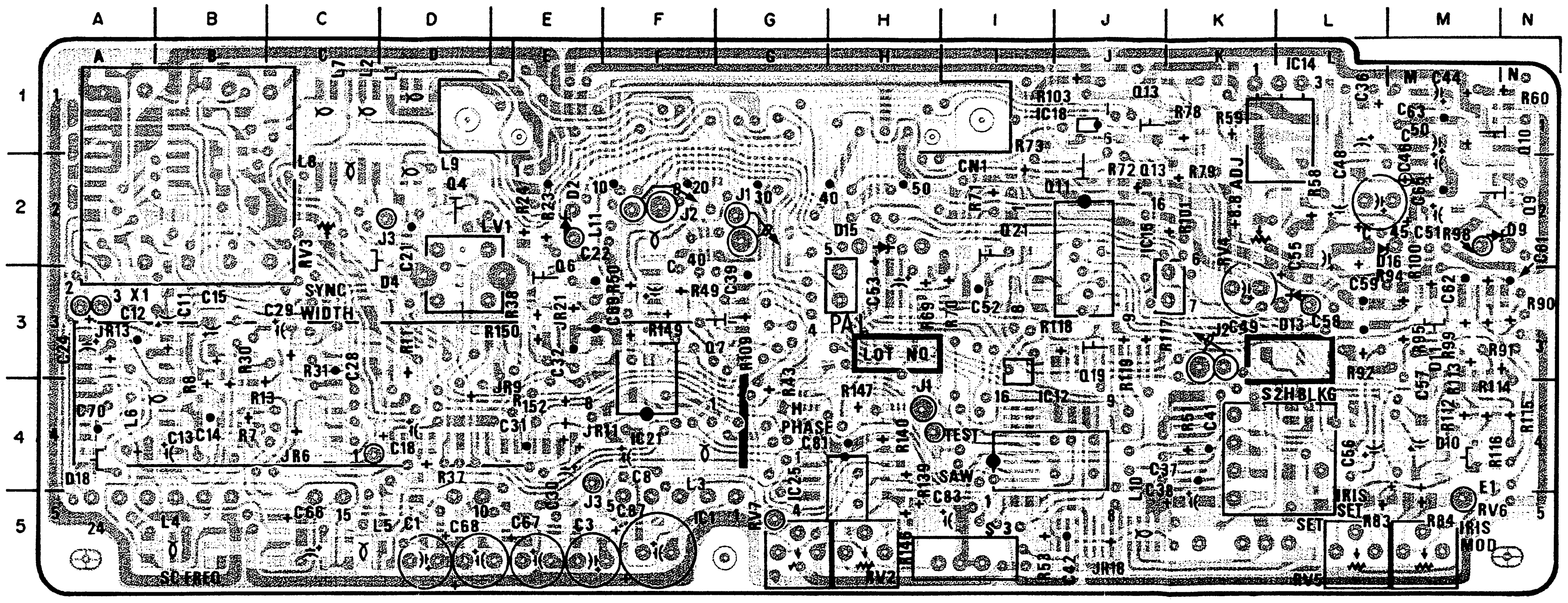
1-629-762-25
BVW-400AP


N
M
L
K
J
I
H
G
F
E
D
C
1
2
3
4
5
1-629-762-24
SG-152A
JAPAN
PAL
IC11

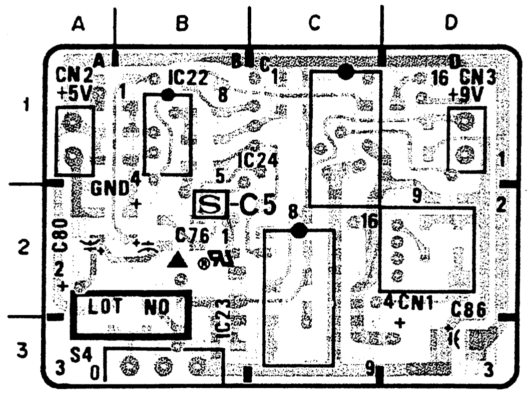
SG-152AP -C

1-629-762-25
BVW-400AP

SG-152AP;SYNC GEN
SG-157P;SC PHASE


A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
SYNC WIDTH
LOT NO
PHASE
TEST
SAW
S2H BLKG
IRIS SET
IRIS MOD
SET
SC FREQ
PAL

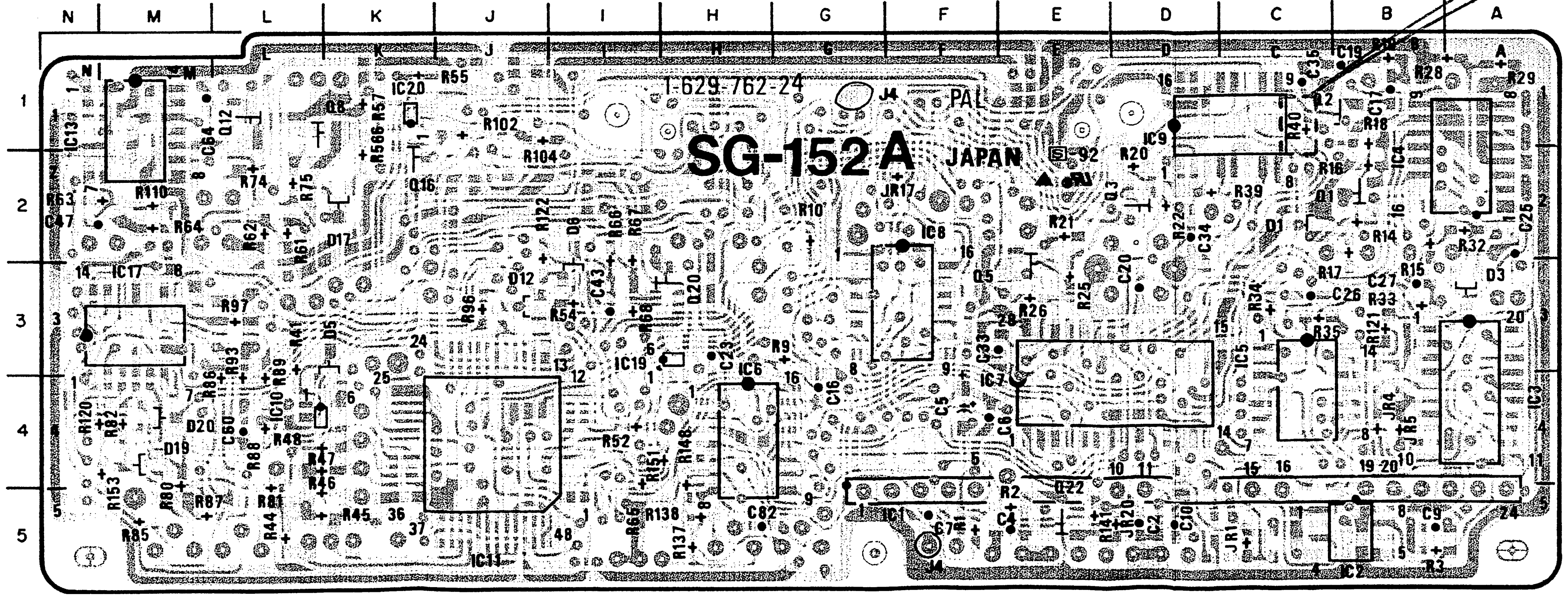
SG-152AP -SOLDERING SIDE-
1-629-762-25
BVW-400AP


A
B
C
D
1
2
3
CN2 +5V
GND
CN3 +9V
IC22
IC24
C5
LOT NO
CN1
S4

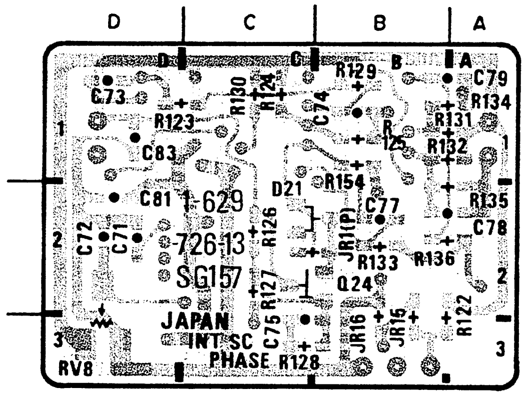
SG-157/157P -SOLDERING SIDE-
1-629-726-13
BVW-400A
BVW-400AP

CHANGE INFORMATION FOR SG-152AP BOARD
IN THE BVW-400AP

R40 1800 → 1000 SERIAL NO.40001 - 40360


N
M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
1-629-762-24
SG-152A
JAPAN
PAL
R40

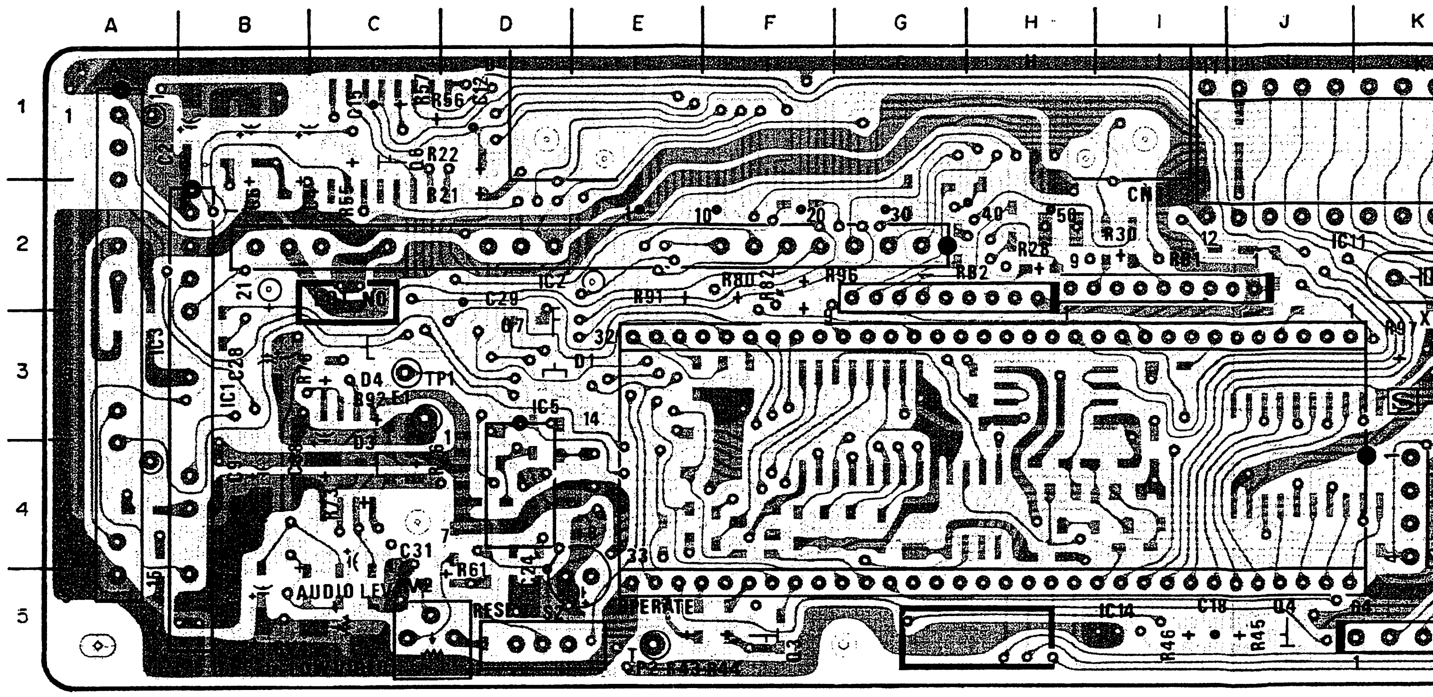
SG-152AP -COMPONENT SIDE-
1-629-762-25
BVW-400AP


D
C
B
A
1
2
3
1-629-726-13
SG157
JAPAN
INT SC PHASE
RV8

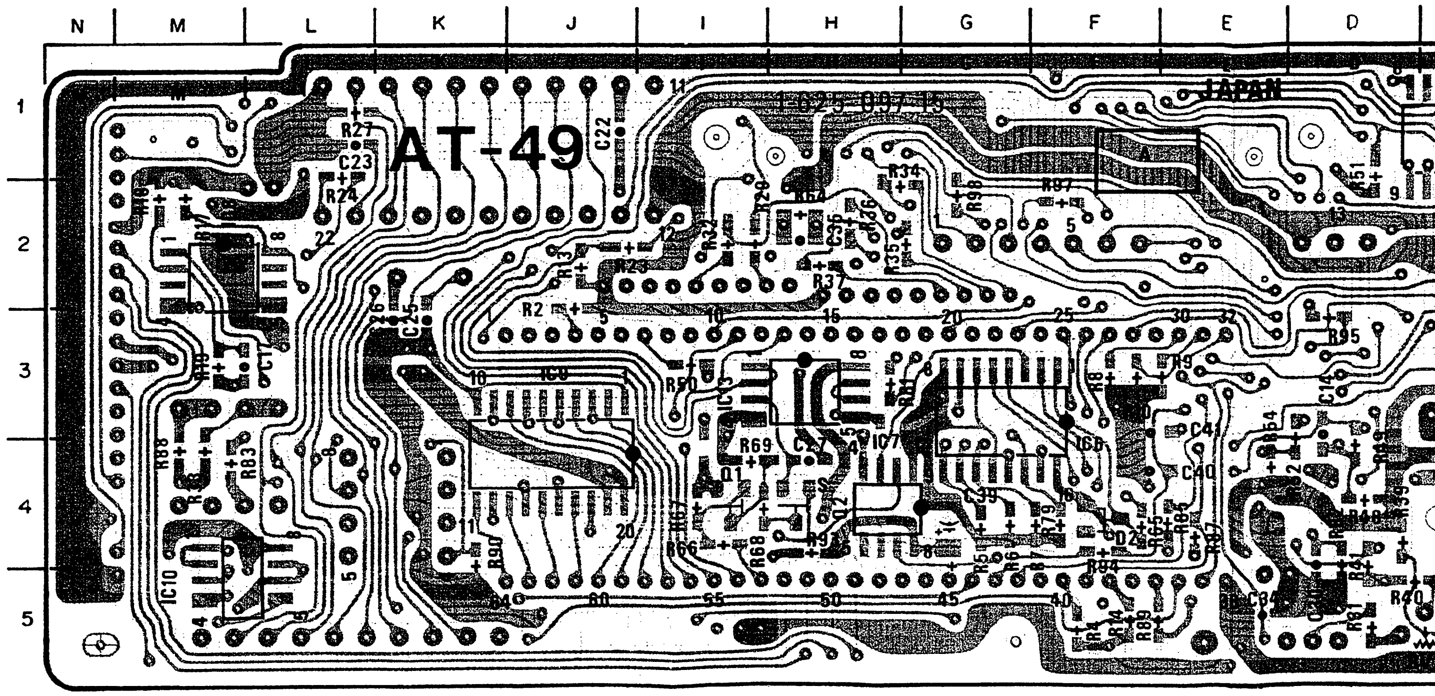
SG-157/157P -COMPONENT SIDE-
1-629-726-13
BVW-400A
BVW-400AP

CN1	I-2
D1	E-3
D2	F-4
D3	C-4
D4	C-3
D2	B-3
IC1	B-3
IC2	D-2
IC3	A-3
IC4	B-1
IC5	D-3
IC6	F-3
IC7	H-4
IC8	M-2
IC9	J-3
IC10	M-5
IC11	J-2
IC12	M-3
IC13	I-3
IC14	H-5
IC16	B-4
IC17	L-4
Q1	I-4
Q2	H-4
Q3	F-5
Q4	J-5
Q6	C-1
Q7	D-3
RB1	I-2
RB2	H-2
RB3	L-5
RV1	M-3
RV2	C-5
RV4	B-5
S1	M-3
S2	D-5
TP1	C-3
TP2	E-5
X1	K-3

AT-49B;AUTO W/B,CHARA GEN,SYS-CON.

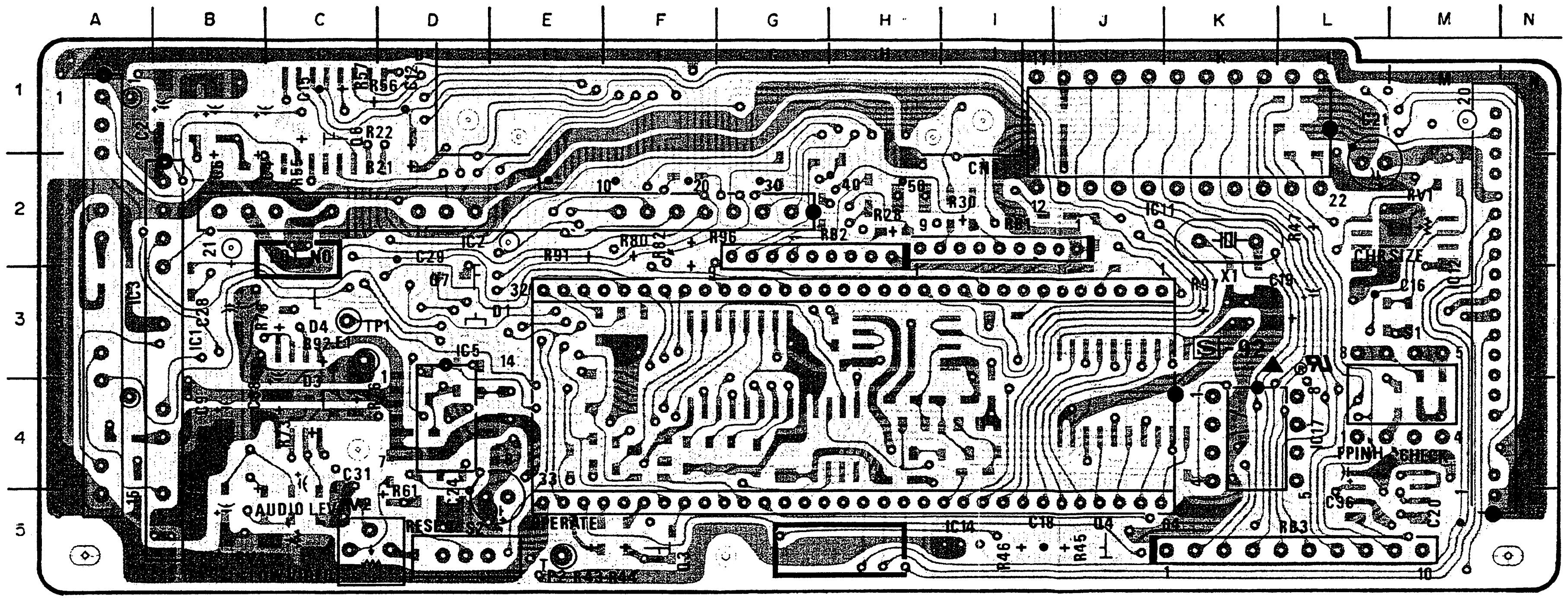

A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
IC1
IC2
IC5
IC7
IC11
IC14
D1
D3
D4
TP1
C28
C29
C31
C18
R22
R61
R91
R82
R46
R45
AUDIO LEVEL
RESET
OPERATE
CN1

AT-
1-625-
BVW-40
BVW-40


N
M
L
K
J
I
H
G
F
E
D
1
2
3
4
5
AT-49
JAPAN
1-625-097-12
IC9
IC10
IC7
IC6
R27
C23
R24
C22
R34
R97
R2
R37
R69
R95
C41
C40
C39
R94
R90

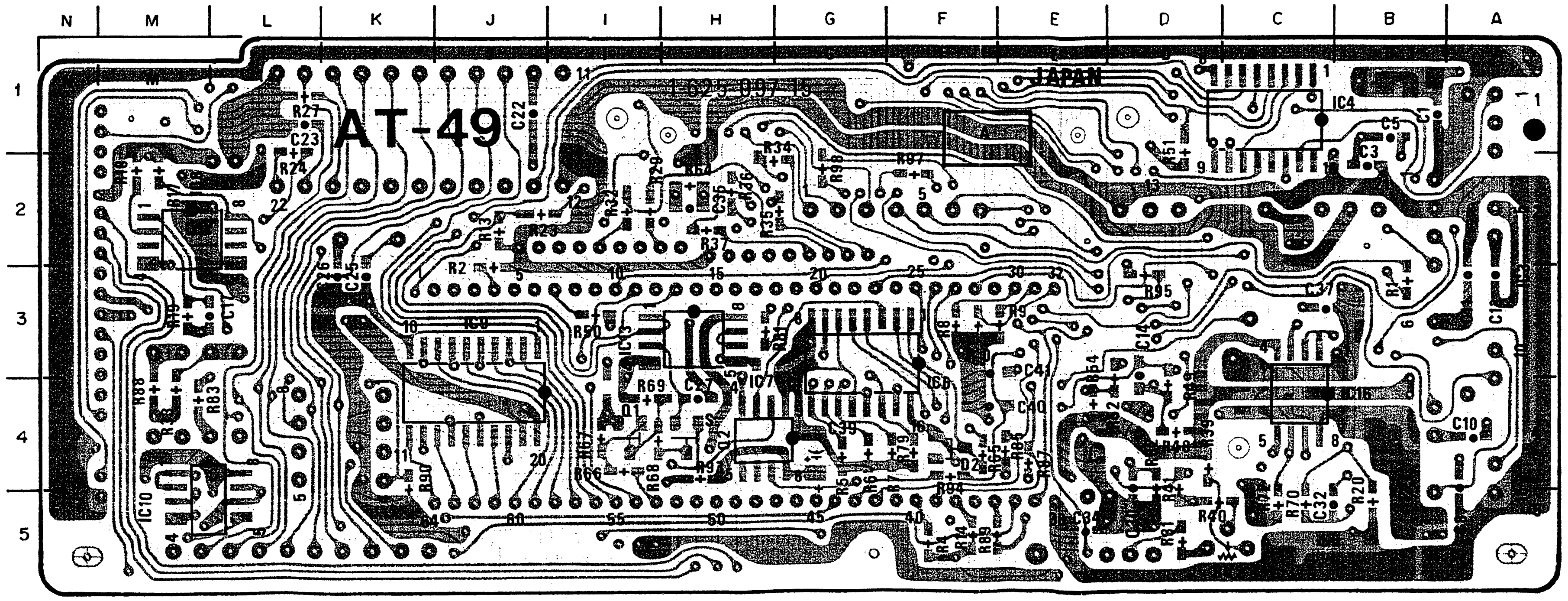
AT-
1-625-0
BVW-400
BVW-400

AT-49B;AUTO W/B,CHARA GEN,SYS-CON.


A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
IC1
IC2
IC3
IC5
IC11
IC14
C29
C31
C16
C18
C19
C20
C36
D1
D4
TP1
TP2
X1
RV1
R21
R22
R56
R61
R80
R82
R91
R92
R96
AUDIO LEVEL
RESET
OPERATE
CHR SIZE
PIN CHECK

AT-49B -COMPONENT SIDE-

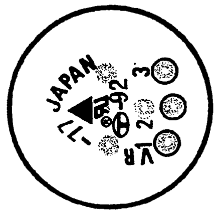
1-625-097-15
BVW-400A
BVW-400AP


N
M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
AT-49
JAPAN
IC4
IC6
IC7
IC8
IC9
IC10
C1
C3
C5
C10
C22
C23
C25
C32
C37
C39
C40
C41
R2
R20
R23
R24
R27
R32
R34
R37
R40
R50
R69
R70
R83
R88
R95
R97

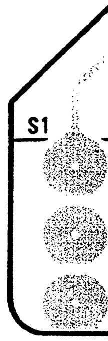
AT-49B -SOLDERING SIDE-

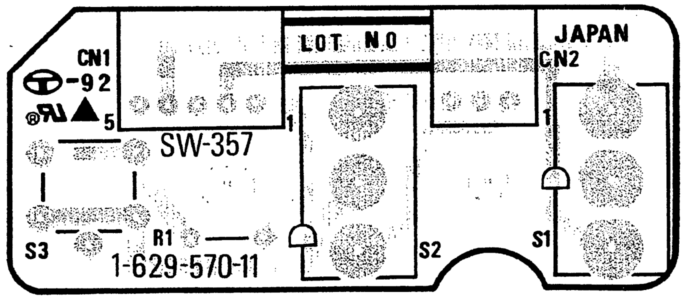
1-625-097-15
BVW-400A
BVW-400AP

SW-220;SEWTCH BOARD
SW-357B;SWITCH BOARD
VR-77;VOLUME CONTROL


JAPAN
-92
3
2
1
VR
-77

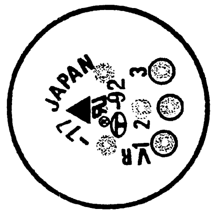
VR-77 -COMPONENT SIDE-
1-625-554-13
BVW-400A
BVW-400AP



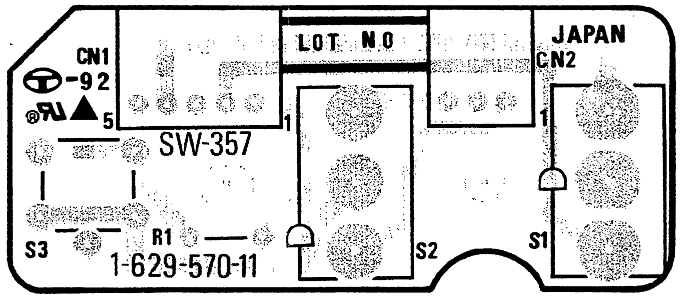

CN1
-92
5
LOT NO
JAPAN
CN2
1
1
SW-357
R1
S3
1-629-570-11
S2
S1

SW-357B -COMPONENT SIDE-
1-629-570-11
BVW-400A
BVW-400AP

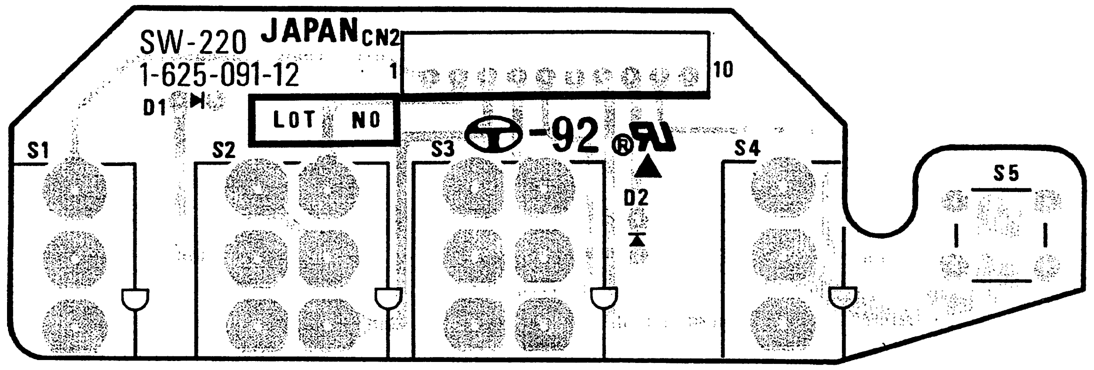
SW-220;SEWTCH BOARD
SW-357B;SWITCH BOARD
VR-77;VOLUME CONTROL


JAPAN
VR-77
-92
1
2
3

VR-77 -COMPONENT SIDE-
1-625-554-13
BVW-400A
BVW-400AP


CN1
-92
5
SW-357
LOT NO
JAPAN
CN2
1
1
R1
S3
1-629-570-11
S2
S1

SW-357B -COMPONENT SIDE-
1-629-570-11
BVW-400A
BVW-400AP

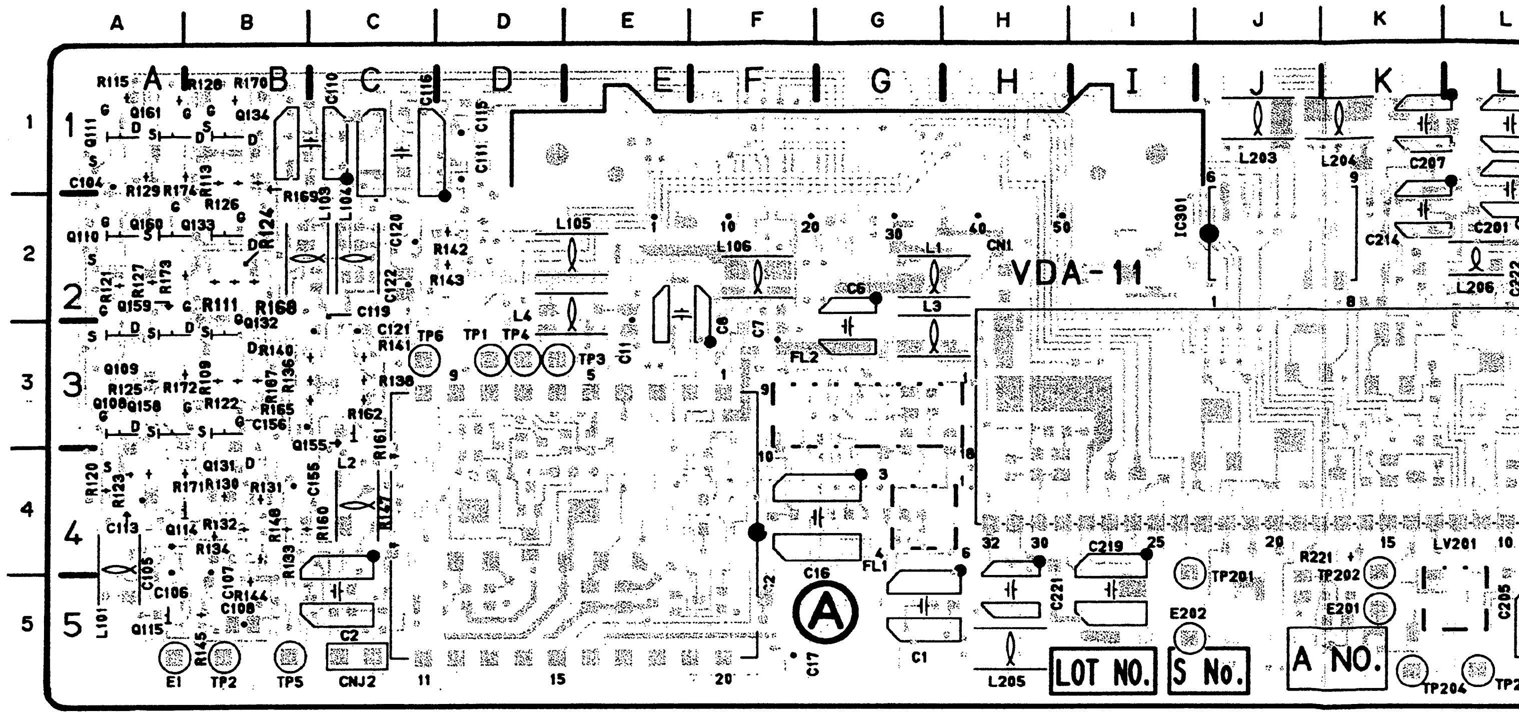

SW-220
JAPAN
CN2
1-625-091-12
1
10
D1
LOT NO
-92
S1
S2
S3
S4
S5
D2

SW-220 -COMPONENT SIDE-
1-625-091-12
BVW-400A
BVW-400AP

VDA-11P;CTDM AND C-MODULATOR

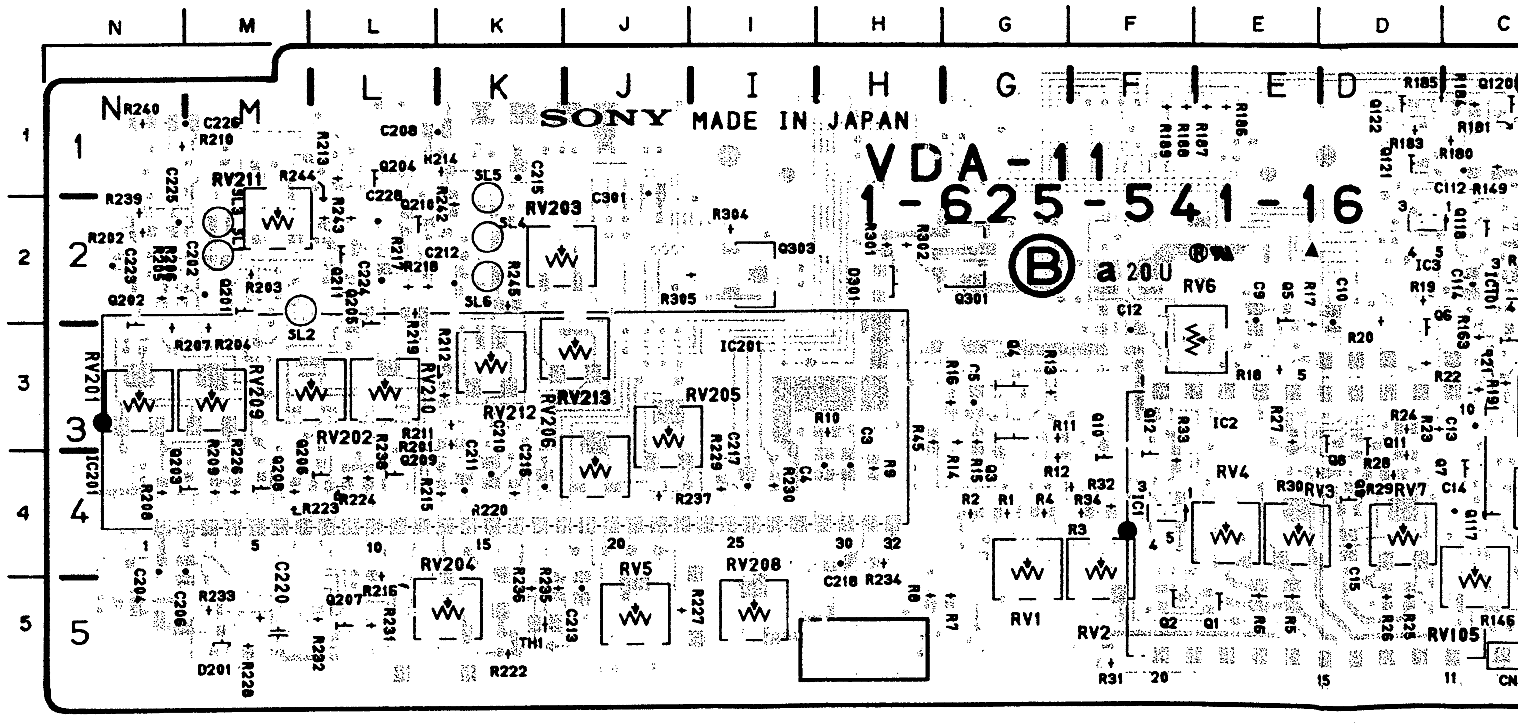
S/N; 40001 through 41567

CN1	H-2
CN2	C-5
CNJ2	C-5
CV1	A-3
CV2	A-2
CV3	B-1
CV4	B-1
CV11	B-3
CV12	B-2
CV13	B-1
CV14	B-1
D201	M-5
D301	H-2
E1	A-5
E201	K-5
E202	I-5
FL1	G-4
FL2	F-3
FL202	N-2
FL203	N-1
IC1	F-4
IC2	E-3
IC3	D-2
IC101	C-2
IC201	N-4
IC301	I-2
LV201	L-4
Q1	E-5
Q2	F-5
Q3	G-4
Q4	G-3
Q5	E-2
Q6	C-2
Q7	C-4
Q8	D-4
Q9	D-4
Q10	F-3
Q11	D-3
Q12	F-3
Q101	A-5
Q106	A-4
Q107	B-4
Q108	A-3
Q109	A-3
Q110	A-2
Q111	A-1
Q112	B-5
Q114	A-4
Q115	A-5
Q116	C-4
Q117	C-4
Q118	C-2
Q120	C-1
Q121	D-1
Q122	D-1
Q123	C-1
Q131	B-4
Q132	B-3
Q133	B-2
Q134	B-1
Q153	C-3
Q154	B-3
Q155	C-3
Q156	C-1
Q157	B-2
Q158	A-3
Q159	A-2
Q160	A-2
Q161	A-1
Q201	M-2
Q202	N-2
Q203	N-4
Q204	L-1
Q205	L-2
Q206	M-4
Q207	L-5
Q208	M-4
Q209	L-4
Q210	L-2
Q211	L-2
Q301	G-2
Q303	I-2
RV1	G-5
RV2	F-5
RV3	D-4
RV4	E-4
RV5	J-4
RV6	F-2
RV7	D-4
RV101	A-4
RV102	A-3
RV103	A-2
RV104	A-1
RV105	C-5
RV107	C-4
RV108	B-3
RV201	N-3
RV202	L-3
RV203	K-2
RV204	K-4
RV205	I-3
RV206	K-3
RV208	I-4
RV209	M-3
RV210	L-3
RV211	M-1
RV212	K-3
RV213	J-3
TH1	K-5
TP1	D-3
TP2	B-5
TP3	E-3
TP4	D-3
TP5	B-5
TP6	C-3
TP201	J-5
TP202	K-5
TP203	L-5
TP204	K-5



VDA-11/11

1-625-541-16
BVW-400A
BVW-400AP



VDA-11/11

1-625-541-16
BVW-400A
BVW-400AP

VDA-11P;CTDM AND C-MODULATOR

S/N; 40001 through 41567

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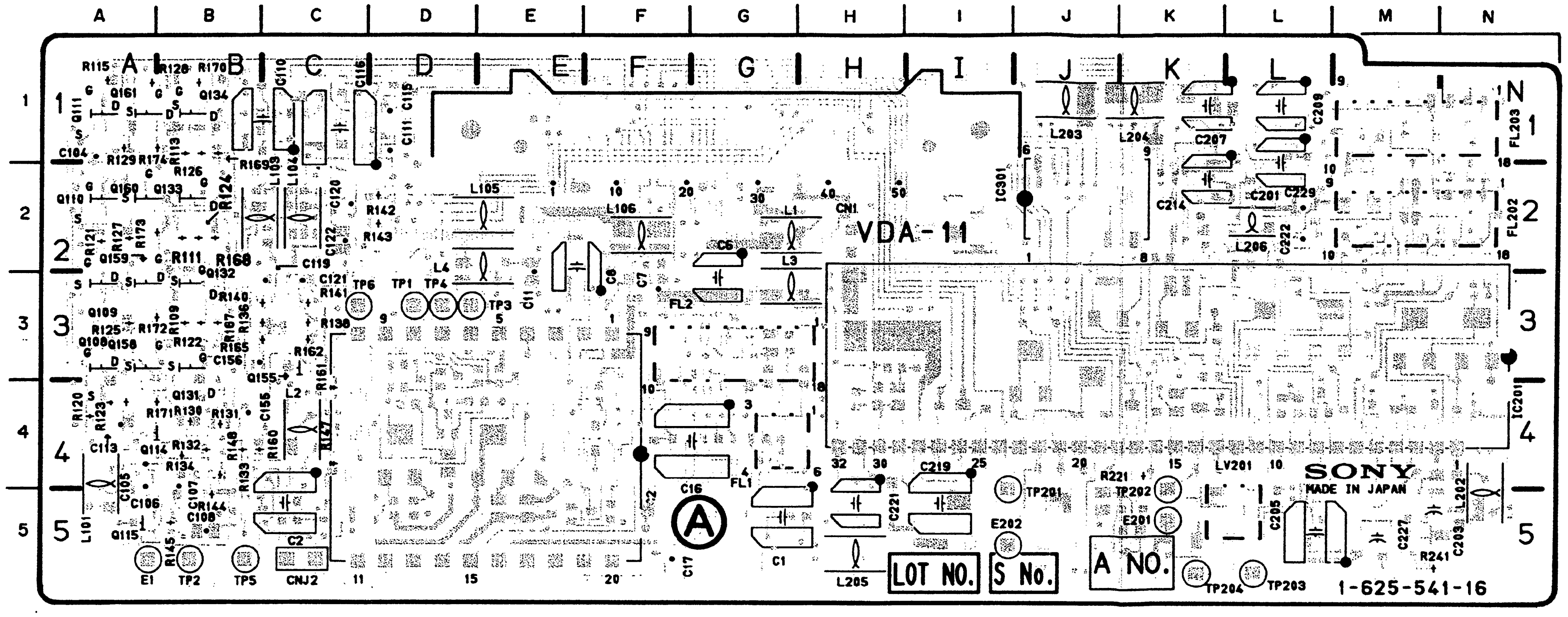
5


A
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H
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J
K
L
M
N
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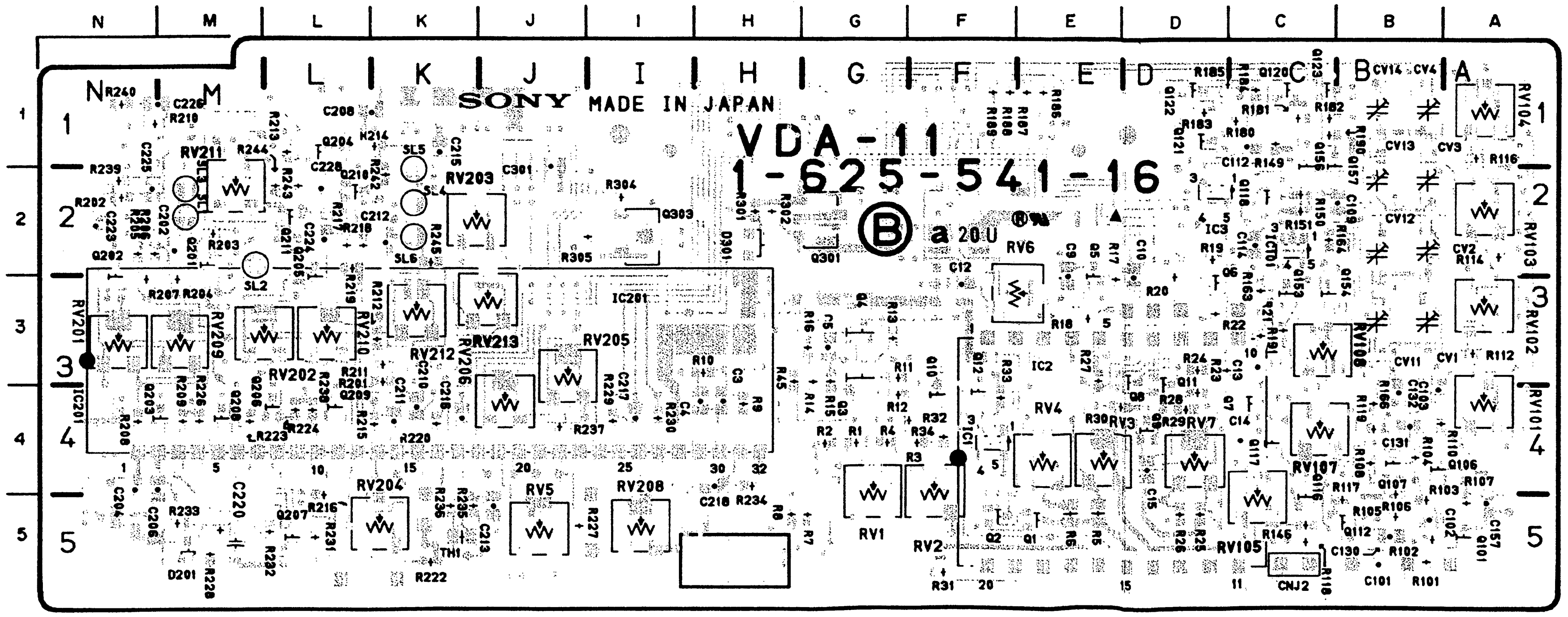
3
4
5
VDA-11
CN1
IC301
IC201
L1
L3
L4
L105
L106
L203
L204
L205
L206
LV201
C6
C16
C1
C7
C8
C119
C120
C121
C122
C201
C207
C214
C219
C221
C222
C229
C205
C227
C203
C106
C104
C105
C108
C113
C155
C156
C209
FL1
FL2
FL202
FL203
L101
L102
L202
Q109
Q110
Q111
Q115
Q131
Q132
Q133
Q134
Q155
Q158
Q159
Q160
Q161
R111
R115
R120
R122
R125
R126
R129
R130
R131
R132
R134
R138
R140
R141
R142
R143
R144
R145
R162
R165
R168
R169
R170
R171
R172
R174
R221
R241
TP1
TP2
TP3
TP4
TP5
TP6
TP201
TP202
TP203
TP204
E1
E201
E202
CNJ2
SONY
MADE IN JAPAN
LOT NO.
S No.
A NO.
1-625-541-16

VDA-11/11P -COMPONENT SIDE-

1-625-541-16
BVW-400A
BVW-400AP


N
M
L
K
J
I
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G
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E
D
C
B
A
1
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5
SONY MADE IN JAPAN
VDA-11
1-625-541-16
a 20U
IC1
IC2
IC3
IC201
RV1
RV2
RV3
RV4
RV5
RV6
RV7
RV101
RV102
RV103
RV104
RV105
RV107
RV108
RV201
RV202
RV203
RV204
RV205
RV206
RV208
RV209
RV210
RV211
RV212
RV213
CV1
CV2
CV3
CV4
CV11
CV12
CV13
CV14
SL2
SL5
SL6
Q1
Q2
Q301
D201
D301
C12
C14
C208
C218
C220
C301
R10
R18
R20
R22
R24
R28
R29
R30
R31
R32
R34
R116
R130
R146
R149
R151
R207
R208
R220
R222
R223
R224
R233
R234
R237
R239
R240
R244
R304
R305
TH1
CNJ2
C101
R101
R102

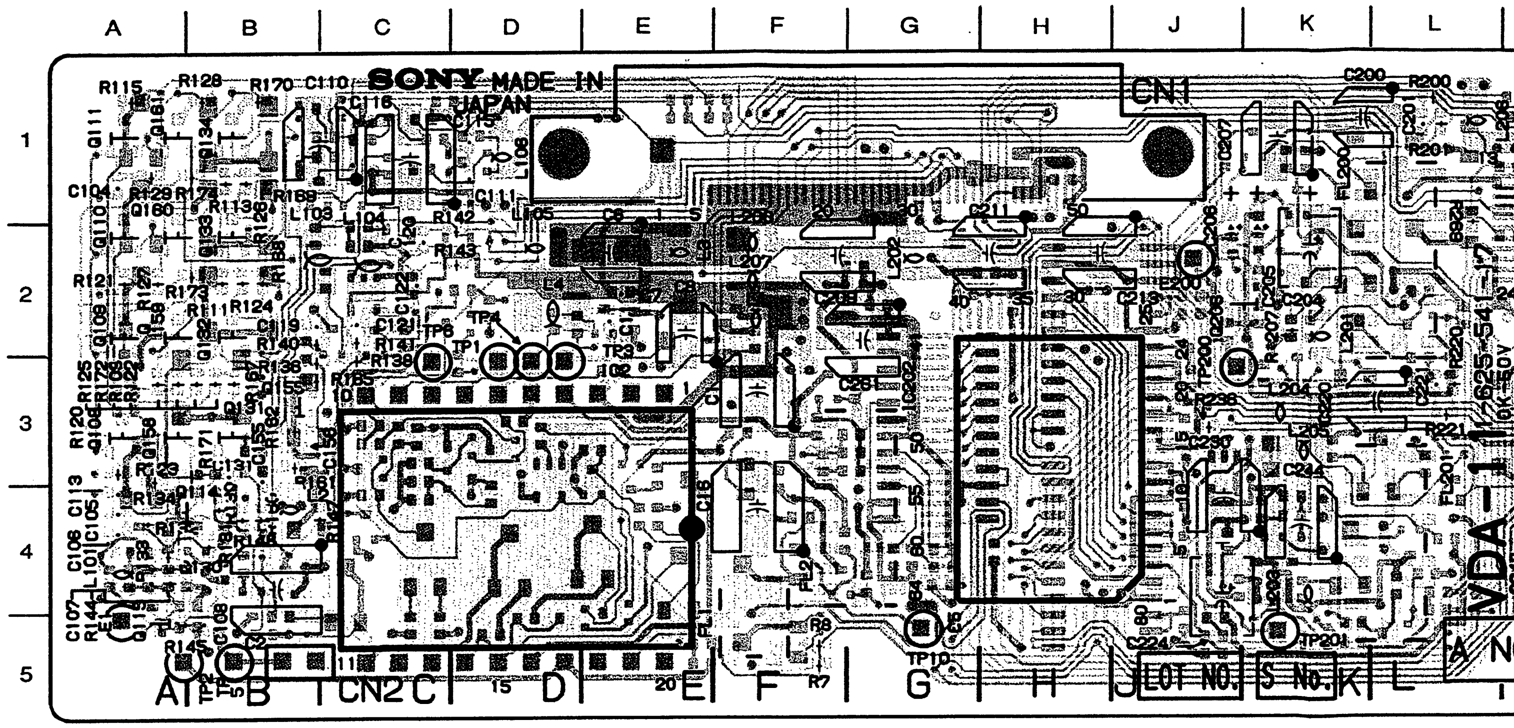
VDA-11/11P -SOLDERING SIDE-

1-625-541-16
BVW-400A
BVW-400AP

CN1	G-1
CN2	B-5
CV1	A-3
CV2	B-2
CV3	B-1
CV4	B-1
CV11	B-3
CV12	B-2
CV13	B-1
CV14	B-1
D200	N-4
D201	N-4
E1	A-5
E200	J-2
FL1	F-5
FL2	G-4
FL200	L-2
FL201	L-4
IC1	D-4
IC2	E-3
IC3	D-2
IC101	C-2
IC200	H-3
IC201	H-5
IC202	H-3
IC203	H-2
IC204	M-2
IC206	N-5
IC207	M-5
IC208	N-4
IC209	N-4
IC210	N-3
IC211	N-3
IC212	N-2
IC213	M-1
IC301	H-2
LV200	N-4
Q1	D-5
Q2	E-5
Q3	F-4
Q5	E-2
Q6	D-2
Q7	C-3
Q8	D-3
Q9	D-3
Q10	E-3
Q11	D-3
Q12	E-4
Q13	F-3
Q101	A-5
Q106	A-4
Q107	B-4
Q108	A-3
Q109	A-2
Q110	A-2
Q111	A-1
Q112	B-4
Q114	A-4
Q115	A-5
Q116	B-4
Q117	C-4
Q118	C-2
Q120	C-1
Q121	D-1
Q122	D-1
Q123	C-1
Q131	B-3
Q132	B-2
Q133	B-2
Q134	B-1
Q153	C-2
Q154	C-2
Q155	B-3
Q156	C-1
Q157	B-1
Q158	A-3
Q159	A-2
Q160	A-2
Q161	A-1
Q200	L-2
Q201	K-3
Q202	K-2
Q203	K-2
Q204	K-1
Q205	K-1
Q206	K-2
Q207	L-5
Q208	K-5
Q209	K-4
Q210	K-4
Q211	L-4
Q212	L-3
Q213	J-3
Q214	M-5
Q215	M-4
Q303	H-1
RV1	F-4
RV2	E-4
RV3	D-4
RV4	E-4
RV5	F-5
RV6	E-2
RV7	C-4
RV10	F-4
RV101	A-3
RV102	A-2
RV103	A-1
RV104	A-1
RV105	C-4
RV107	B-4
RV108	B-3
RV200	K-3
RV201	K-2
RV202	K-1
RV203	K-4
RV204	L-3
RV206	M-3
RV207	M-3
RV208	L-1
RV209	L-2
RV210	M-2
TH200	M-2
TP1	D-3
TP2	A-5
TP3	D-3
TP4	D-3
TP5	B-5
TP6	C-3
TP10	G-5
TP200	J-3
TP201	K-5
TP203	N-4
TP204	N-3
X200	N-2

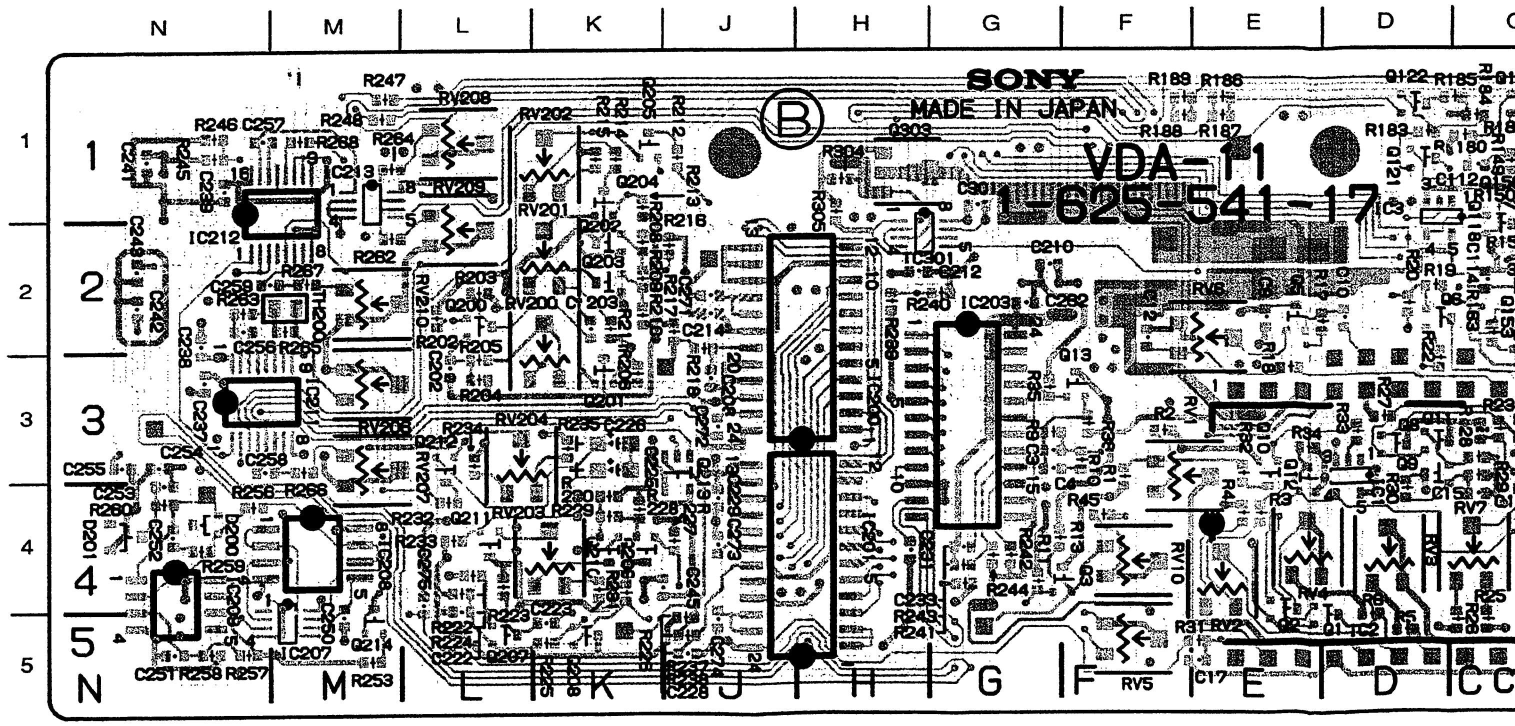
VDA-11P;CTDM AND C-MODULATOR

S/N; 41568 and higher



VDA-11/11

1-625-541-17
BVW-400A
BVW-400AP

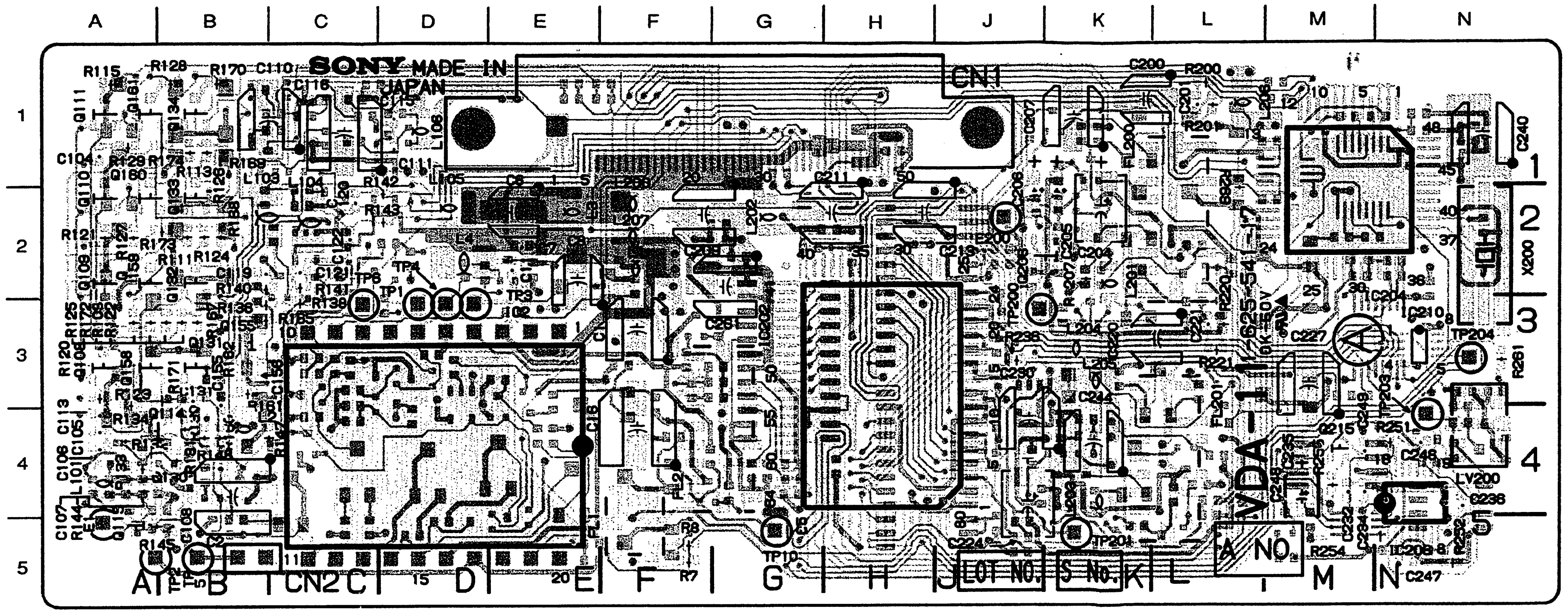


VDA-11/11

1-625-541-17
BVW-400A
BVW-400AP

VDA-11P;CTDM AND C-MODULATOR

S/N; 41568 and higher


A
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G
H
J
K
L
M
N
1
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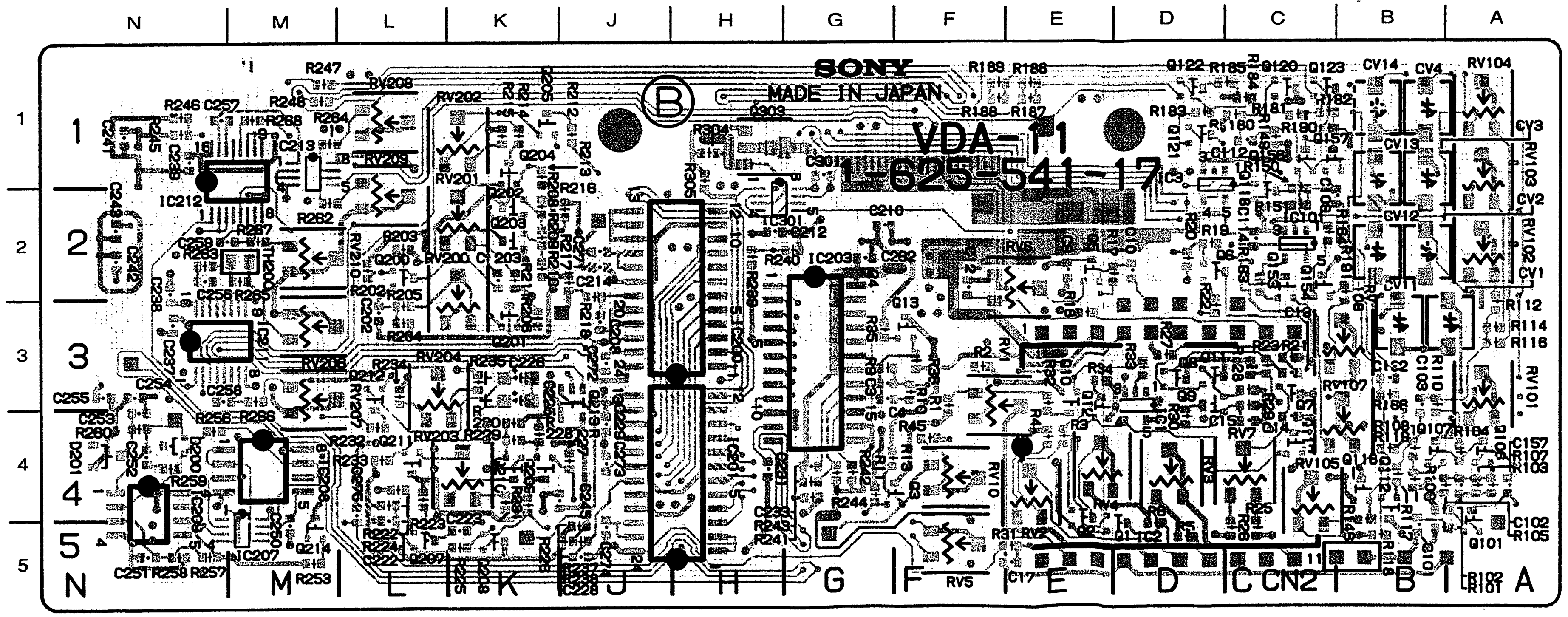
3
4
5
SONY MADE IN JAPAN
CN1
CN2
VDA
LOT NO.
S No.
NO.

VDA-11/11P -COMPONENT SIDE-

1-625-541-17
BVW-400A
BVW-400AP


N
M
L
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J
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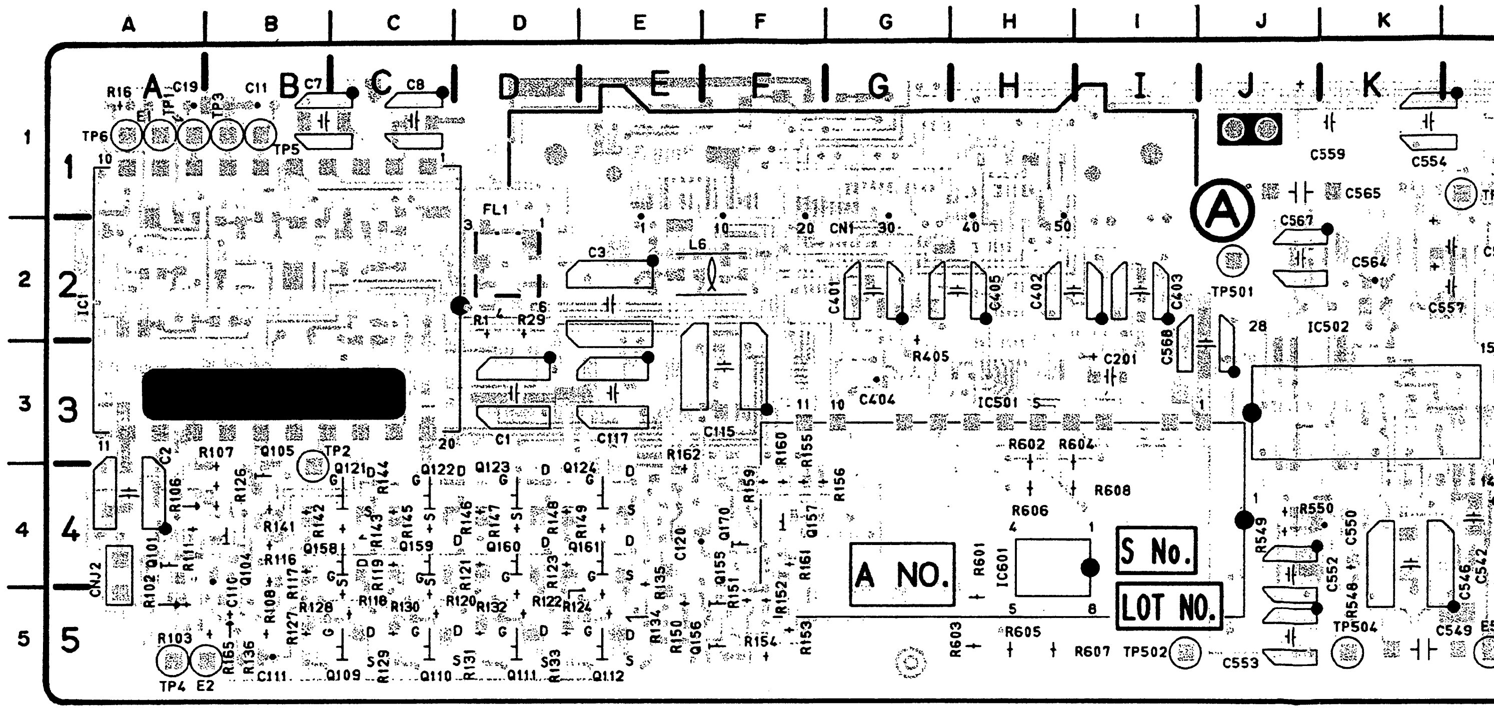
G
F
E
D
C
B
A
1
2
3
4
5
SONY MADE IN JAPAN
VDA-11
1-625-541-17
CN2

VDA-11/11P -SOLDERING SIDE-

1-625-541-17
BVW-400A
BVW-400AP

AFM-6P;Y-MODULATOR,AFM

CN1	G-2
CN2	C-5
CNJ2	A-5
CV1	C-4
CV2	C-4
CV3	D-4
CV4	E-4
CV101	C-5
CV102	C-5
CV103	D-4
CV104	E-4
D201	I-3
D402	I-2
D501	L-1
D502	M-3
D503	N-3
D504	M-5
D505	L-1
D506	L-2
E1	A-1
E2	A-5
E501	L-5
FL1	D-2
IC1	A-2
IC2	H-1
IC3	H-1
IC4	F-4
IC401	G-3
IC501	H-3
IC502	J-2
IC503	N-1
IC504	N-3
IC505	H-1
IC506	L-3
IC507	L-4
IC601	I-4
Q1	D-2
Q2	A-3
Q3	C-2
Q4	A-1
Q5	C-1
Q6	B-2
Q7	A-2
Q8	A-2
Q9	A-2
Q101	A-4
Q102	F-4
Q103	B-5
Q104	A-4
Q105	B-3
Q106	F-5
Q107	F-4
Q108	E-4
Q109	C-5
Q110	C-5
Q111	D-5
Q112	E-5
Q113	E-4
Q115	F-4
Q121	C-4
Q122	C-4
Q123	D-4
Q124	D-4
Q155	F-4
Q156	E-5
Q157	F-4
Q158	B-4
Q159	C-4
Q160	D-4
Q161	D-4
Q170	F-4
Q201	E-1
Q202	F-2
Q401	F-1
Q402	H-2
Q501	M-1
Q502	M-4
Q503	M-4
RV1	D-2
RV2	A-1
RV3	C-3
RV4	D-3
RV5	B-4
RV6	A-3
RV7	B-2
RV8	B-2
RV10	E-1
RV101	C-5
RV102	C-5
RV103	D-5
RV104	E-5
RV107	F-4
RV501	L-2
RV502	L-3
RV503	N-2
RV504	N-5
RV505	M-5
TH501	L-2
TH502	L-3
TP1	A-1
TP2	B-3
TP3	B-1
TP4	A-5
TP5	B-1
TP6	A-1
TP501	J-2
TP502	I-5
TP503	L-1
TP504	K-5
TP505	M-5
TP506	M-5


A
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G
H
I
J
K
1
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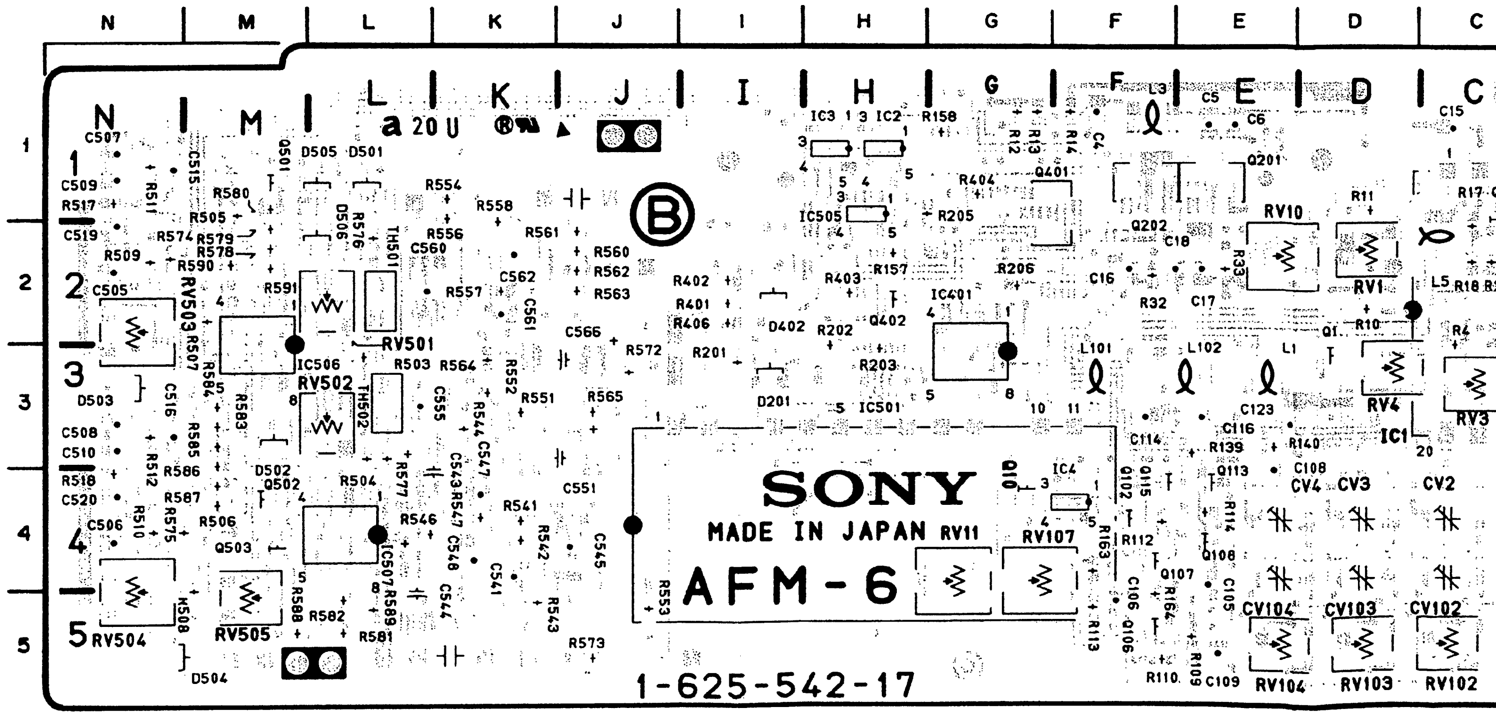
4
5
FL1
CN1
IC502
IC501
TP501
A NO.
S No.
LOT NO.
TP4
E2
TP6
CNJ2

[redacted]

AFM-6/6
1-625-542-17
BVW-400A
BVW-400AP


N
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E
D
C
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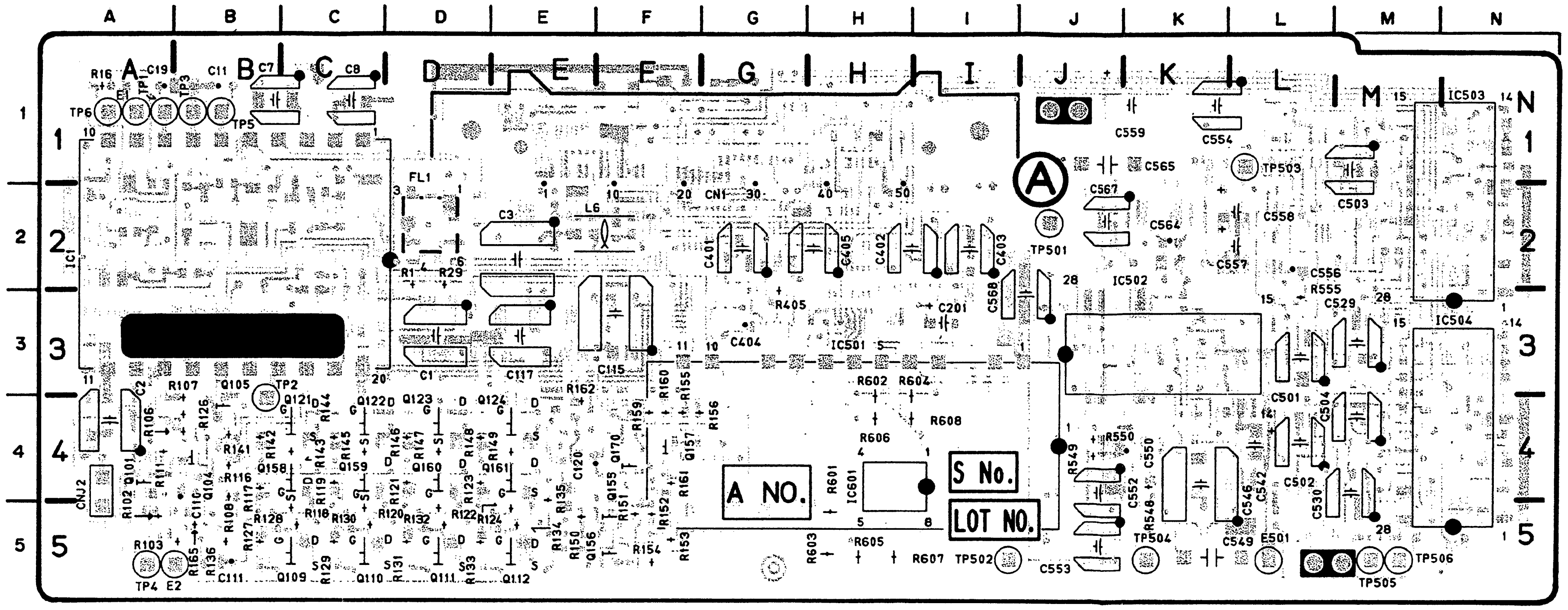
3
4
5
SONY
MADE IN JAPAN
AFM-6
1-625-542-17
RV501
RV502
RV503
RV504
RV505
RV10
RV1
RV4
RV3
RV107
RV104
RV103
RV102
CV104
CV103
CV102
CV4
CV3
CV2
IC1

AFM-6/6
1-625-542-17
BVW-400A
BVW-400AP

AFM-6P;Y-MODULATOR,AFM

-3
-1
-5
-1
-1
-2
-5
-1
-5
-5
-5


A
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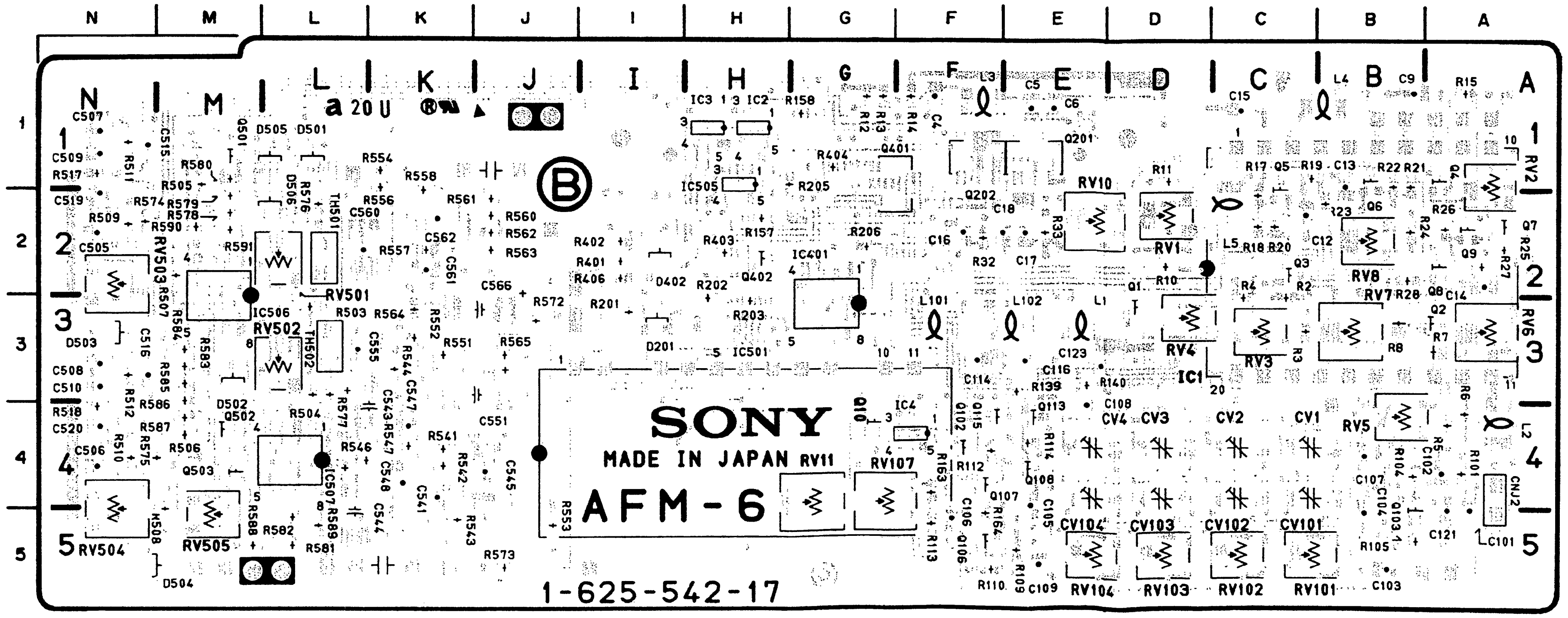
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
IC1
IC501
IC502
IC503
IC504
IC601
CN1
FL1
L6
TP501
TP502
TP503
TP504
TP505
TP506
A NO.
S No.
LOT NO.
Ⓐ

[redacted]

AFM-6/6P -COMPONENT SIDE-

1-625-542-17
BVW-400A
BVW-400AP


N
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D
C
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A
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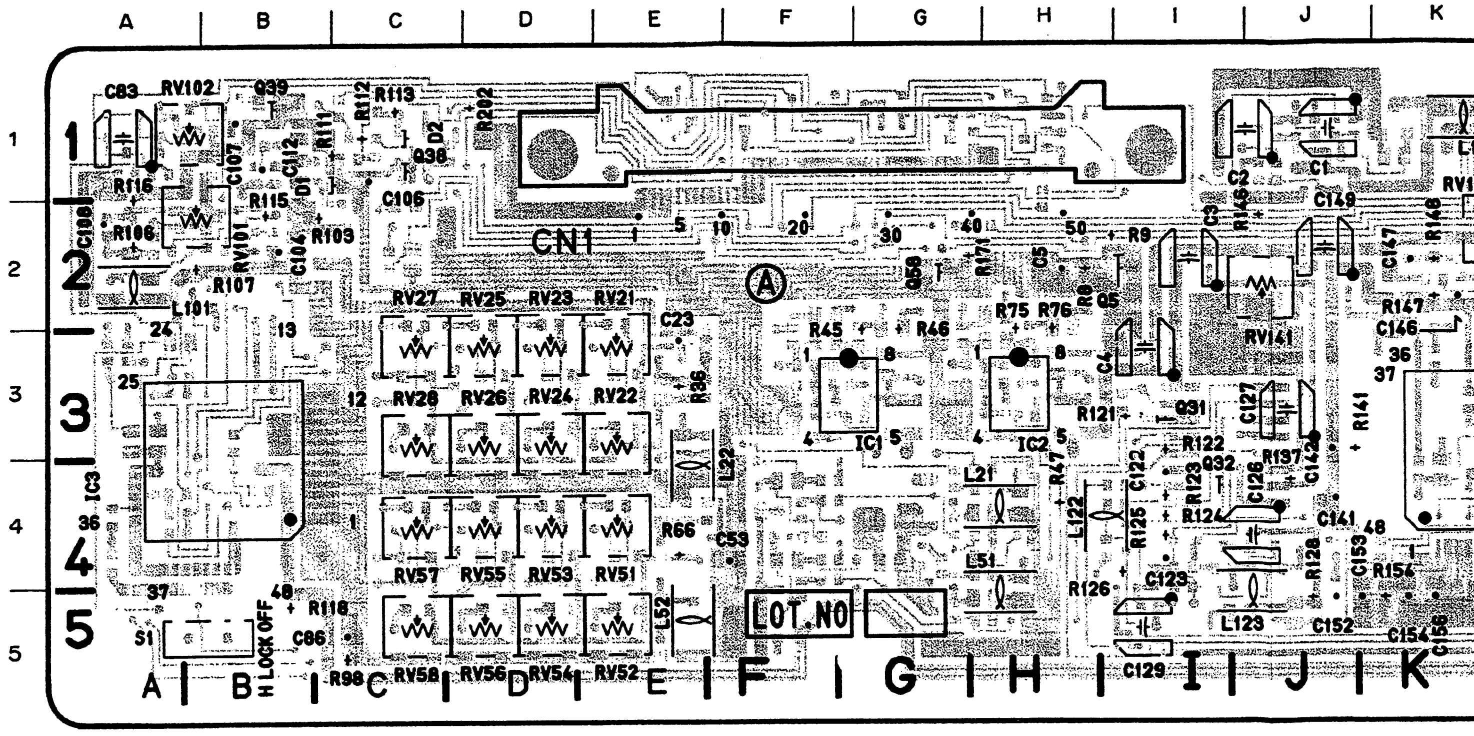
SONY
MADE IN JAPAN
AFM-6
1-625-542-17
RV1
RV2
RV3
RV4
RV5
RV6
RV7
RV8
RV10
RV11
RV101
RV102
RV103
RV104
RV107
RV501
RV502
RV503
RV504
RV505
CV1
CV2
CV3
CV4
CV101
CV102
CV103
CV104
IC1
IC2
IC3
IC4
IC401
IC501
IC505
IC506
IC507
CNJ2

AFM-6/6P -SOLDERING SIDE-

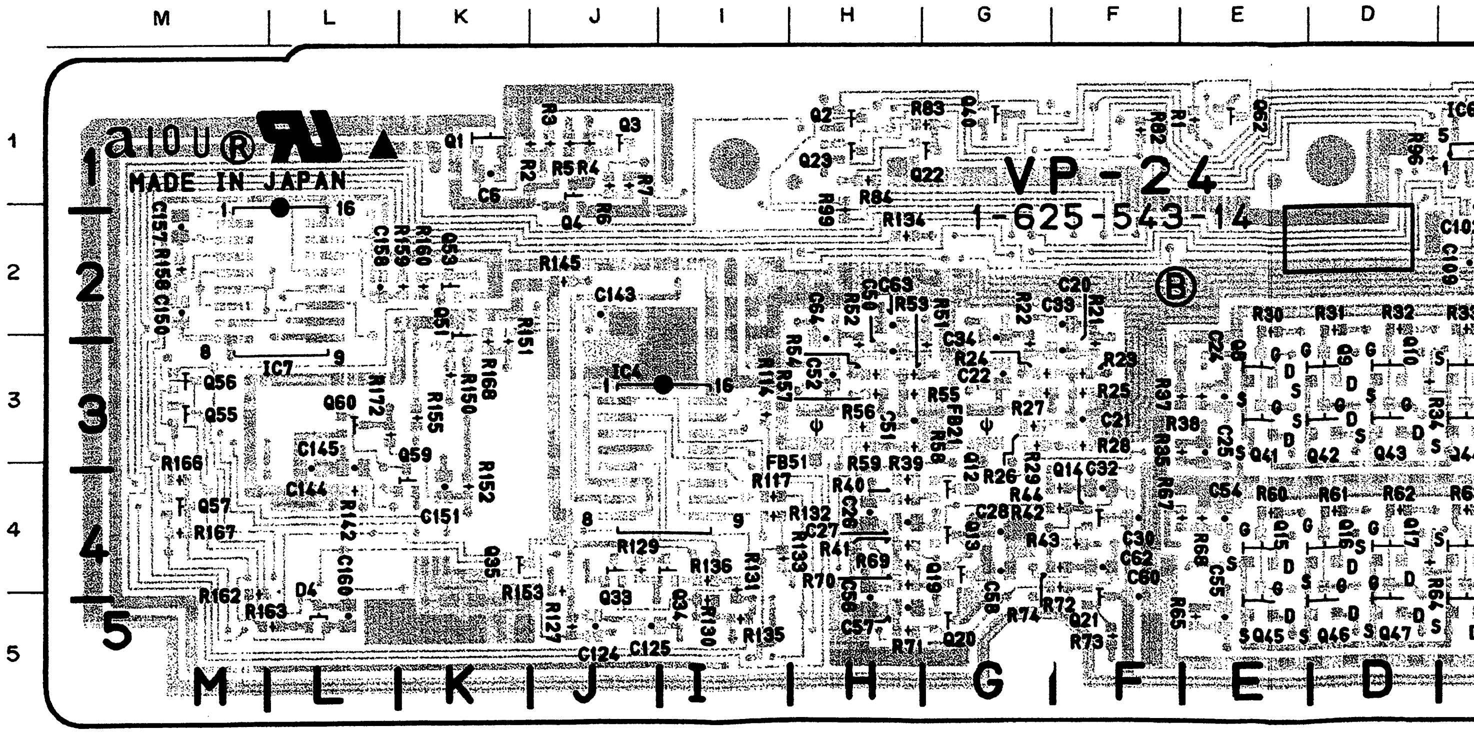
1-625-542-17
BVW-400A
BVW-400AP

VP-24P;VIDEO PB

CN1	D-2
D1	C-1
D2	C-1
D3	M-2
D4	L-4
FB21	G-3
FB51	I-3
FB101	C-2
IC1	G-3
IC2	H-3
IC3	A-4
IC4	J-3
IC5	L-3
IC6	C-1
IC7	L-3
Q1	K-1
Q2	H-1
Q3	J-1
Q4	J-2
Q5	I-2
Q8	E-3
Q9	D-3
Q10	D-3
Q11	C-3
Q12	G-4
Q13	G-4
Q14	F-4
Q15	E-4
Q16	D-4
Q17	D-4
Q18	C-4
Q19	G-4
Q20	G-5
Q21	F-5
Q22	G-1
Q23	H-1
Q25	B-4
Q26	A-1
Q27	A-1
Q28	A-1
Q29	B-1
Q30	C-1
Q31	I-3
Q32	I-4
Q33	J-5
Q34	I-5
Q35	K-4
Q36	B-2
Q37	B-1
Q38	C-1
Q39	B-1
Q40	G-1
Q41	E-3
Q42	D-3
Q43	D-3
Q44	C-3
Q45	E-5
Q46	D-5
Q47	D-5
Q48	C-5
Q51	K-2
Q52	M-1
Q53	K-2
Q54	M-3
Q55	M-3
Q56	M-3
Q57	M-4
Q58	G-2
Q59	K-3
Q60	L-3
Q61	A-2
Q62	E-1
RV21	E-2
RV23	D-2
RV25	D-2
RV27	C-2
RV51	E-4
RV53	D-4
RV55	D-4
RV57	C-4
RV101	B-2
RV102	B-1
RV141	J-3
S1	A-5



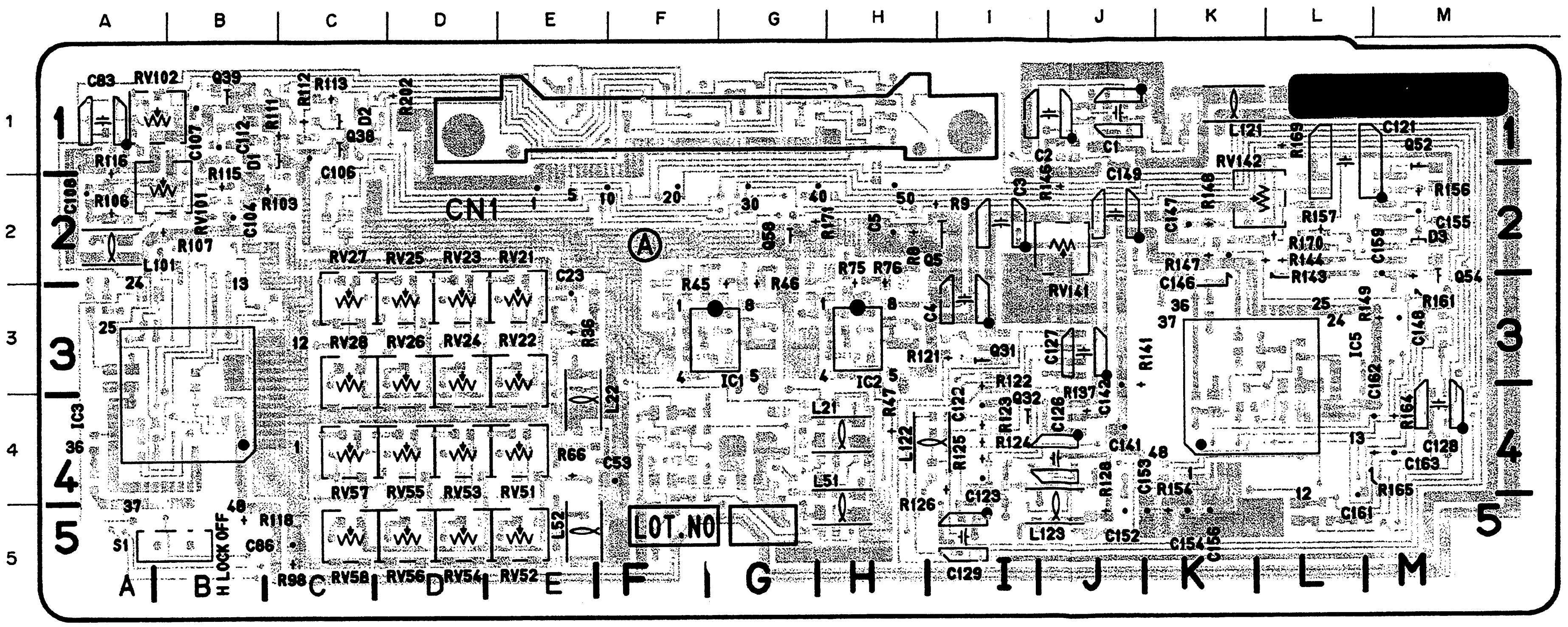
VP-24/
1-625-543-14
BVW-400A
BVW-400AP



VP-24/
1-625-543-14
BVW-400A
BVW-400AP

VP-24P;VIDEO PB

1 3 3 3 3 5 5 5 5 2 1 2 3 3 3 4 2 3 3 2 1 2 2 2 2 4 4 4 4 2 1 3 5


[redacted]
A
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G
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J
K
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M
1
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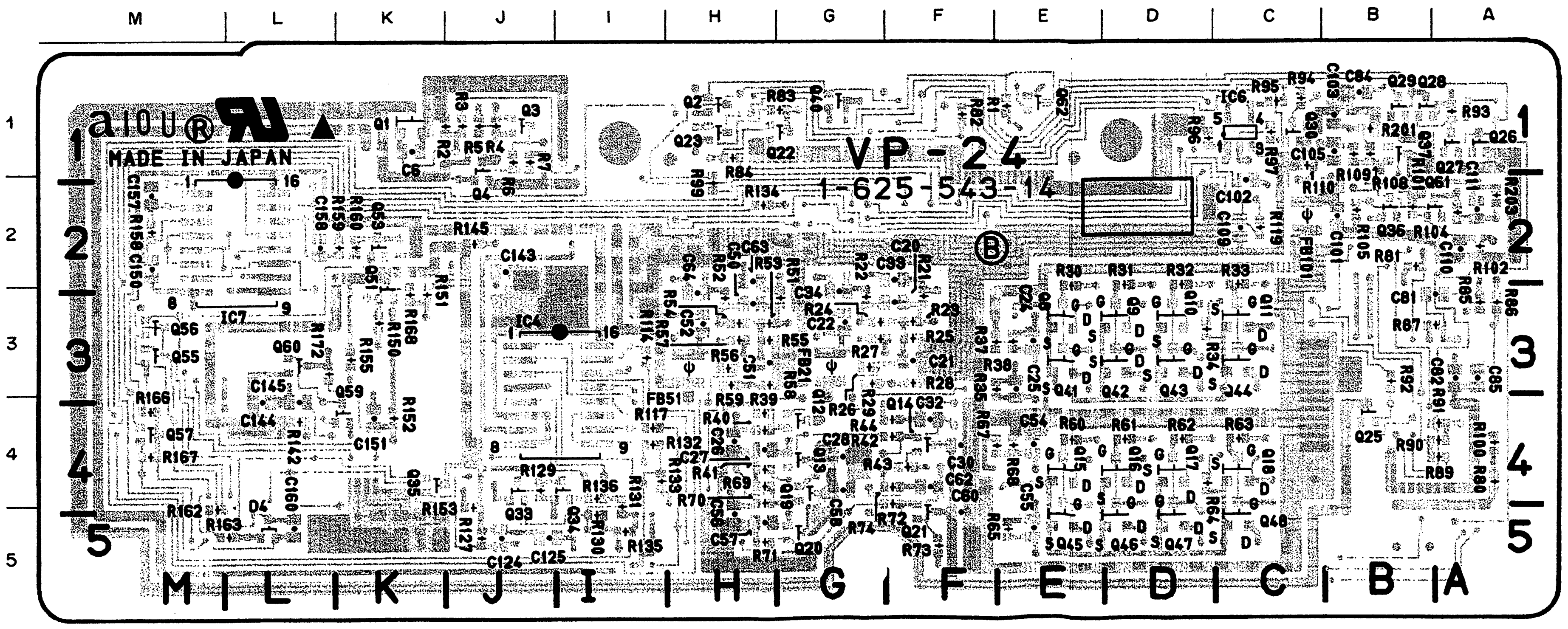
3
4
5
CN1
Ⓐ
IC1
IC2
IC3
IC5
LOT.NO
RV27 RV25 RV23 RV21
RV28 RV26 RV24 RV22
RV57 RV55 RV53 RV51
RV58 RV56 RV54 RV52
RV101 RV102 RV141 RV142
S1
H LOCK OFF

VP-24/24P -COMPONENT SIDE-

1-625-543-14
BVW-400A
BVW-400AP


M
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D
C
B
A
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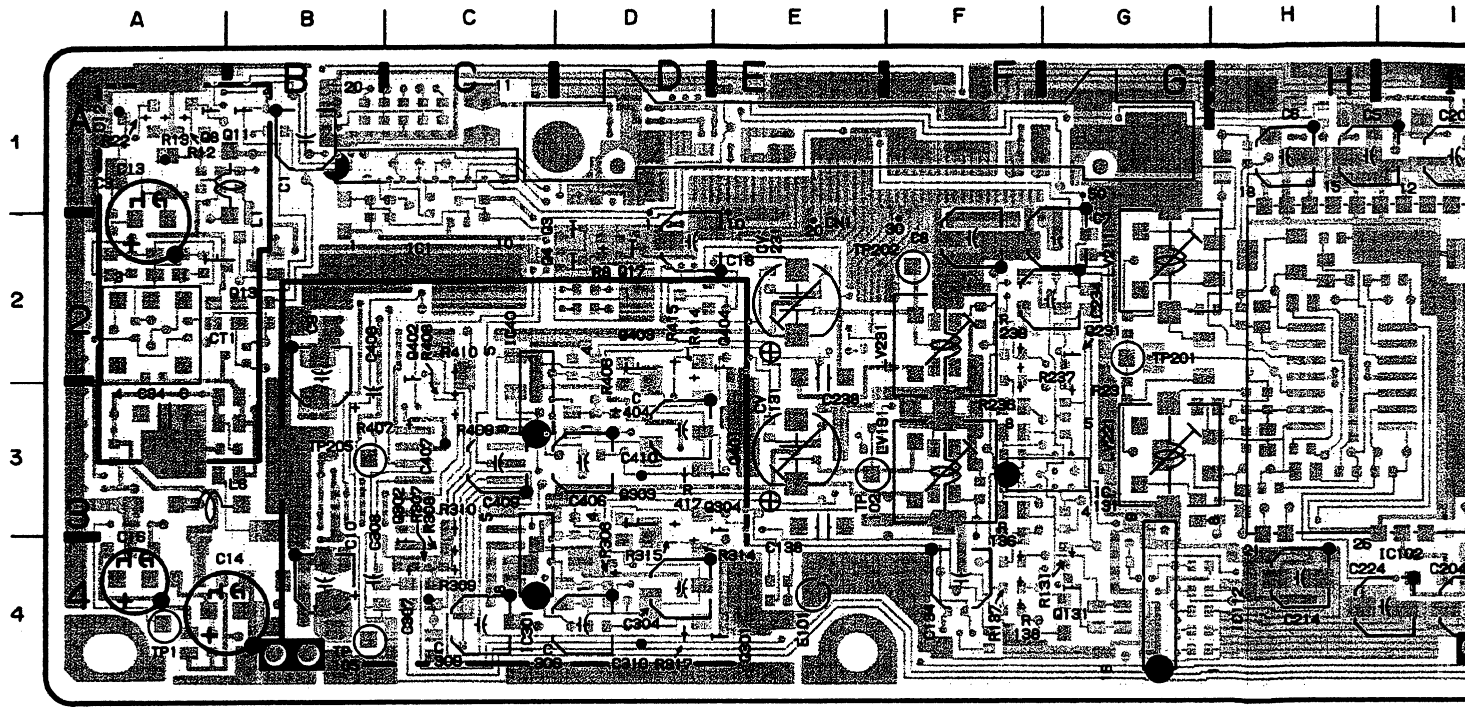
4
5
VP-24
1-625-543-14
Ⓑ
MADE IN JAPAN
IC4
IC6
IC7

VP-24/24P -SOLDERING SIDE-

1-625-543-14
BVW-400A
BVW-400AP

AU-97P;AUDIO REC/PB

CN1	E-2
CT1	A-2
CV131	E-3
CV231	E-2
D1	B-3
D101	F-3
D201	F-2
E101	E-4
IC1	C-2
IC2	A-3
IC102	I-4
IC111	I-2
IC112	H-4
IC131	G-3
IC211	I-2
IC301	C-4
IC302	C-3
IC401	C-2
LV111	K-1
LV121	K-3
LV131	F-3
LV211	G-2
LV221	G-3
LV231	F-2
Q1	C-2
Q2	C-2
Q3	C-2
Q4	C-2
Q8	A-1
Q9	A-1
Q10	A-1
Q11	B-1
Q12	B-2
Q13	B-2
Q14	A-2
Q15	A-2
Q16	D-2
Q17	D-2
Q18	B-3
Q131	G-4
Q132	E-3
Q231	G-2
Q232	E-2
Q301	E-4
Q302	C-3
Q303	D-3
Q304	E-3
Q401	E-3
Q402	C-2
Q403	D-2
Q404	E-2
Q405	F-4
RV1	A-1
RV2	B-3
RV101	J-1
RV111	K-2
RV112	J-2
RV113	I-2
RV121	K-2
RV122	K-3
RV123	K-4
RV201	J-1
RV211	G-2
RV212	H-2
RV221	G-2
RV222	G-3
RV302	E-4
RV303	C-4
RV402	E-3
RV403	C-2
TP1	A-4
TP101	K-2
TP102	E-3
TP105	B-4
TP201	G-2
TP202	E-2
TP205	B-3


A
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H
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3
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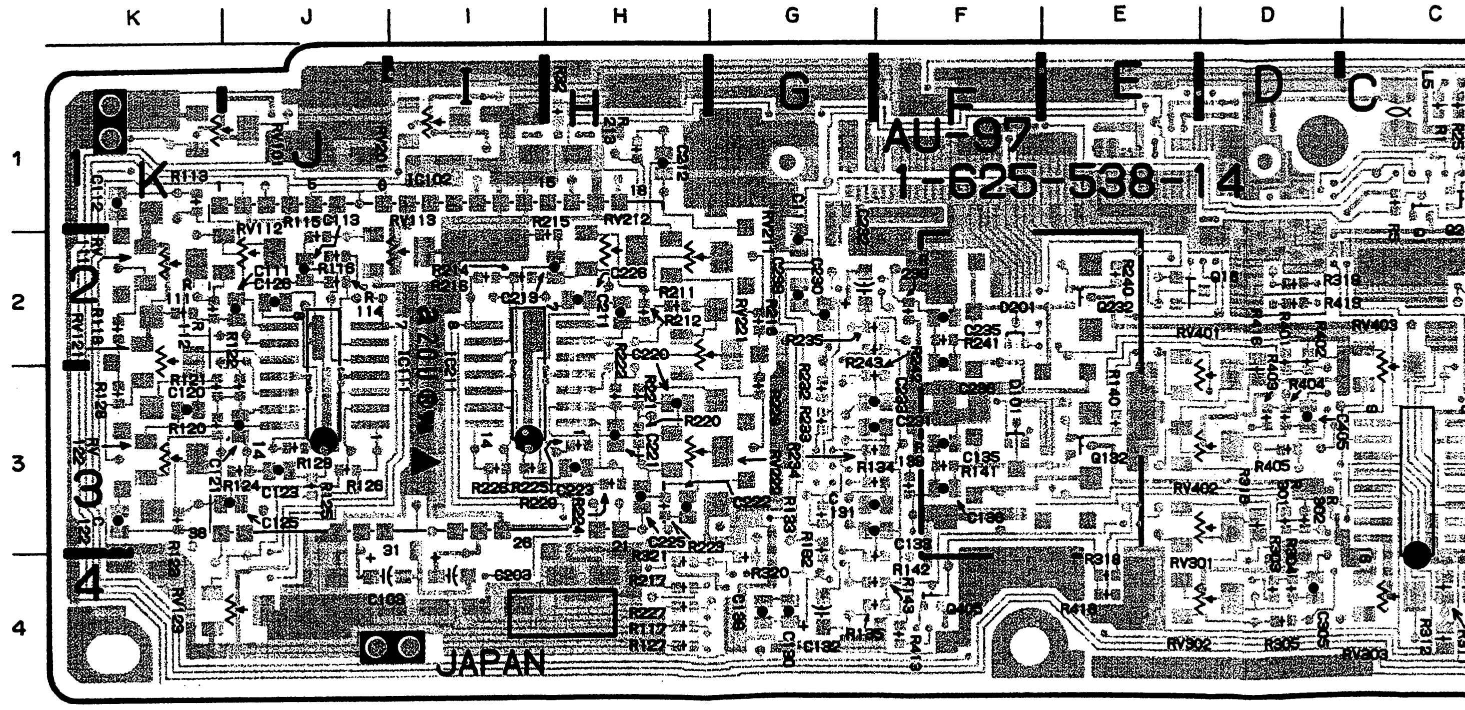
IC1
CT1
C14
TP1
TP201
TP205
IC102
C224

AU-97/

1-625-538-14
BVW-400A
BVW-400AP


K
J
I
H
G
F
E
D
C
1
2
3
4
AU-97
1-625-538-14
JAPAN
RV112
RV401
RV402
RV403
RV301
RV302

AU-97/

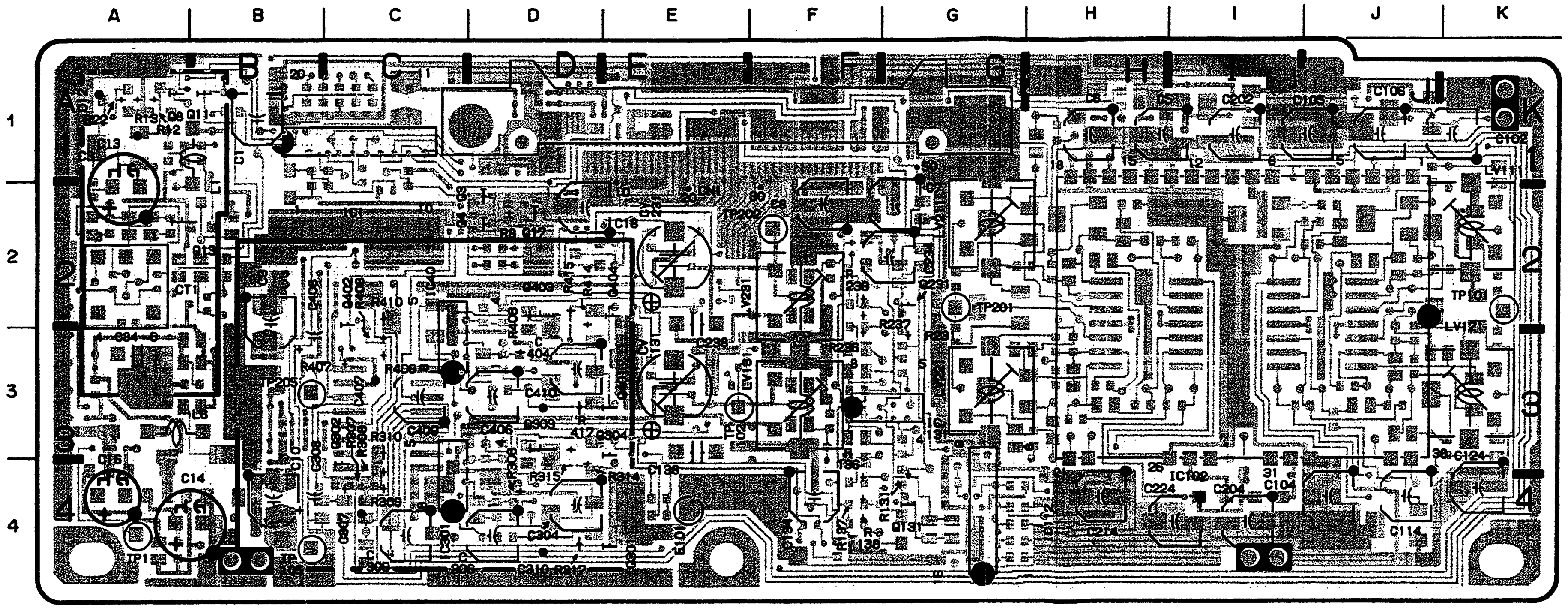
1-625-538-14
BVW-400A
BVW-400AP

AU-97P;AUDIO REC/PB

·2
·2
·2
·4

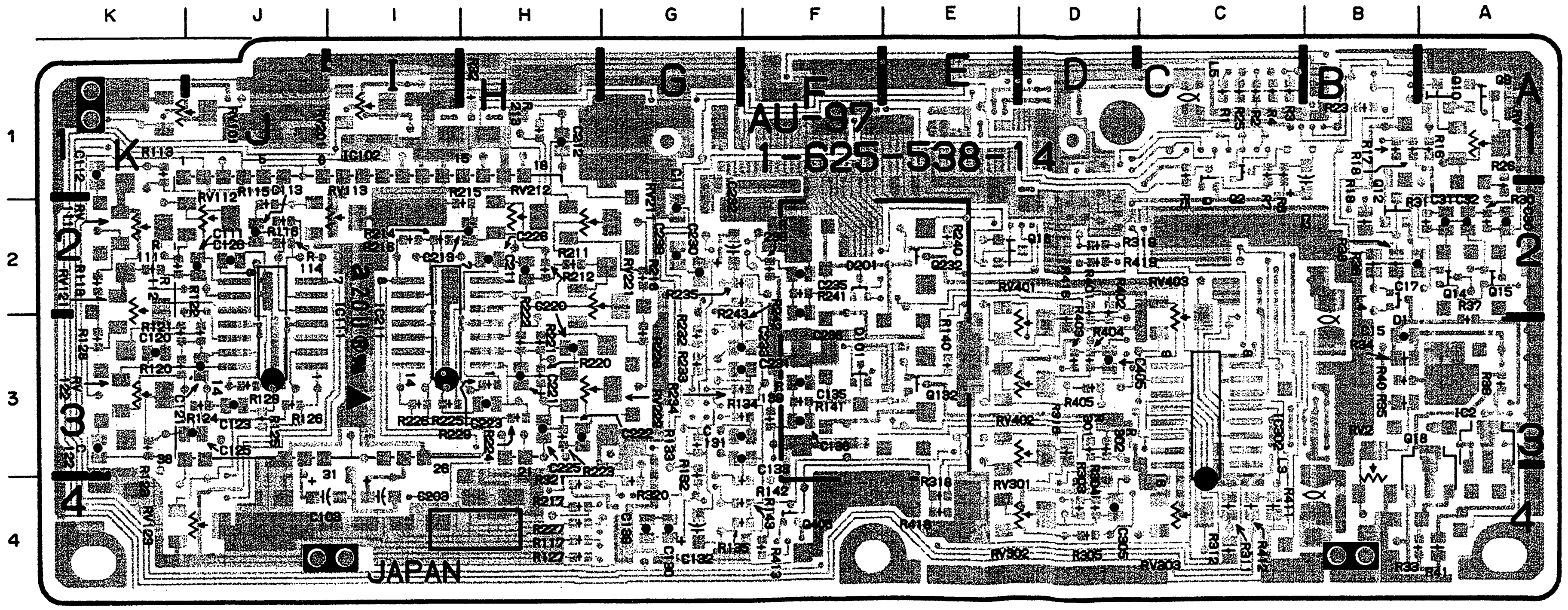
·1
·3
1
·2
2
2
·2
·3
·4
·1
·2
·2
·2
·3
·4
·4
·3
·2

·4
·2
·3
·4
·2
·2
·3


A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
IC1
CT1
C14
C18
TP202
TP201
TP101
LV1
C106
C102
C202
C105
C124
C114
C224
C104
IC102
R314
R315
C304
C310
R312
R309
R406
R410
C406
C409
R407

AU-97/97P -COMPONENT SIDE-

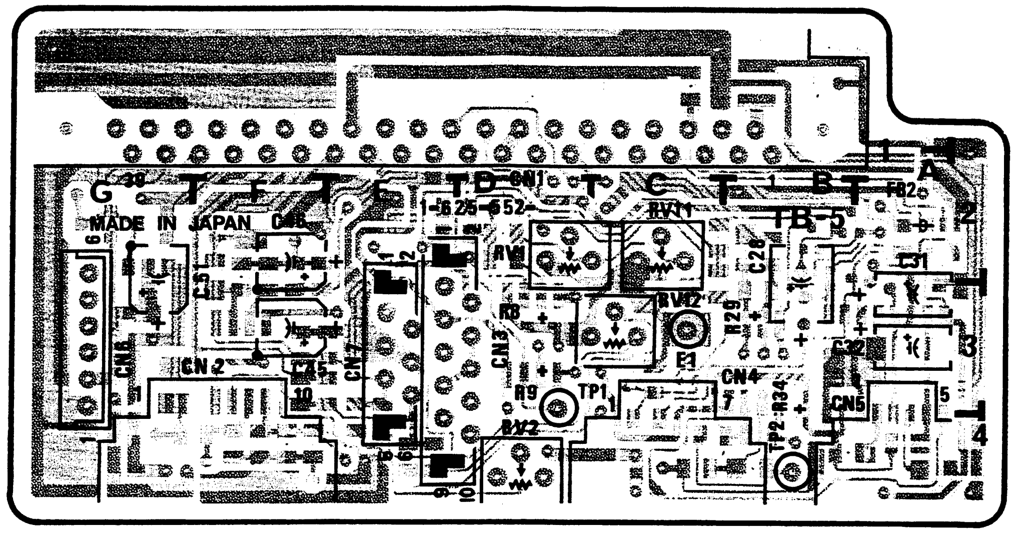
1-625-538-14
BVW-400A
BVW-400AP


K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
AU-97
1-625-538-14
JAPAN
R113
RV112
RV113
IC102
R215
RV212
R211
R212
C226
RV22
R235
R243
R240
R241
R319
R418
RV403
RV401
RV402
RV301
RV302
RV303
R405
R404
R129
R126
R124
R120
R121
C125
C123
C109
R226
R229
C225
C222
R220
R221
R112
R122
R227
R320
R142
C132
C133
C135
R141
R134
R318
R416
R305
R317
R411
Q12
Q14
Q15
Q16
R37
IC2
R26
R23

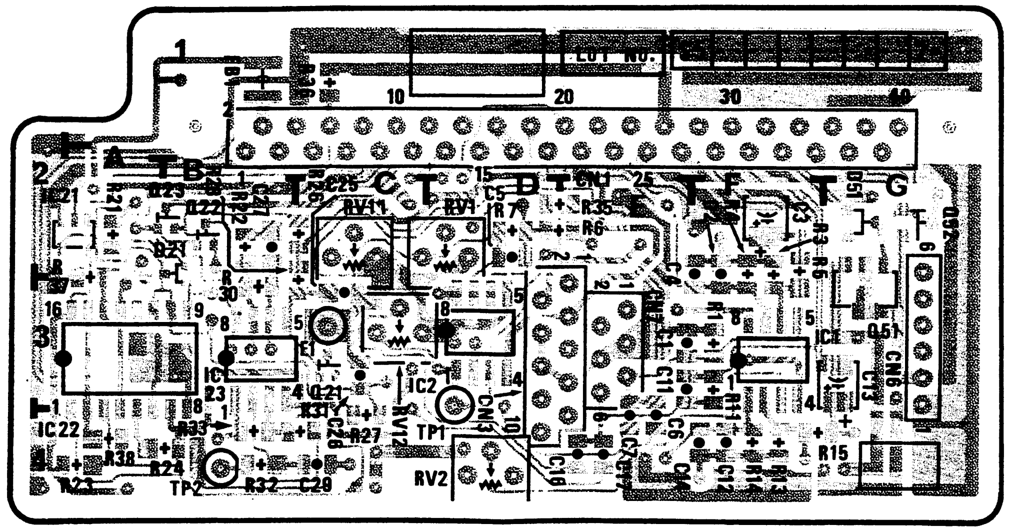
AU-97/97P -SOLDERING SIDE-

1-625-538-14
BVW-400A
BVW-400AP

TB-5;TERMINAL BOARD,AUDIO CONFI

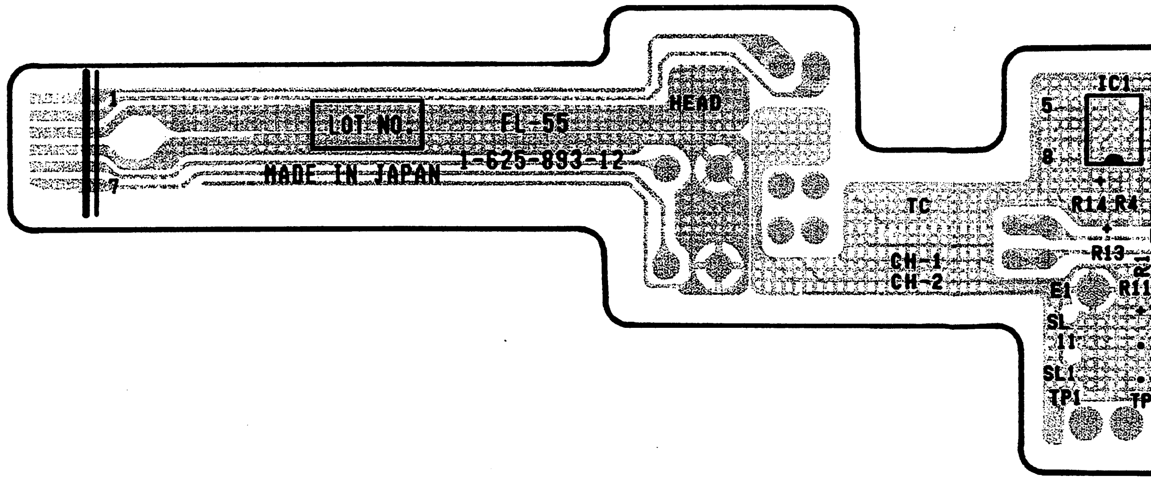

G
MADE IN JAPAN
1-625-552
TB-5
CN1
CN2
CN3
CN4
CN5
CN6
RV1
RV2
RV11
RV12
TP1
TP2
A
B
C
D
E
F

TB-5 -COMPONENT SIDE-
1-625-552-14
BVW-400A
BVW-400AP

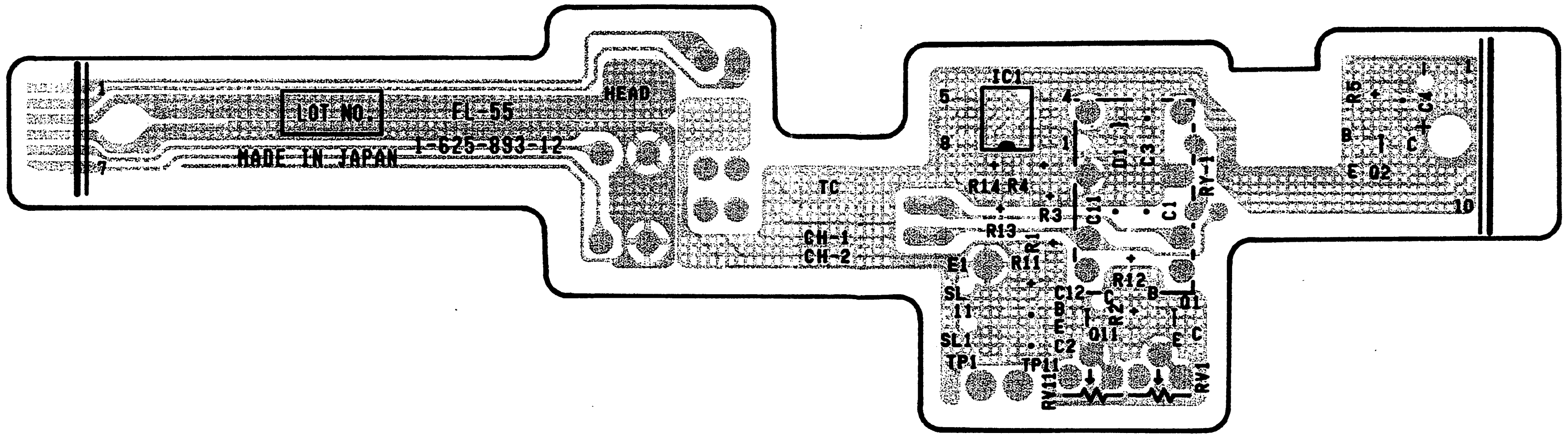

LOT NO.
10
20
30
40
A
B
C
D
E
F
G
IC1
IC2
IC22
RV1
RV2
RV11
RV12
TP1
TP2
CN3
R15
R23
R24
R27
R32
C28

TB-5 -SOLDERING SIDE-
1-625-552-14
BVW-400A
BVW-400AP

FL-55P;AUDIO HEAD AMP,RELAY BOARD


1
7
LOT NO.
FL-55
1-625-893-12
MADE IN JAPAN
HEAD
TC
CH-1
CH-2
IC1
5
8
R14
R4
R13
R11
E1
SL
I1
SL1
TP1
TP

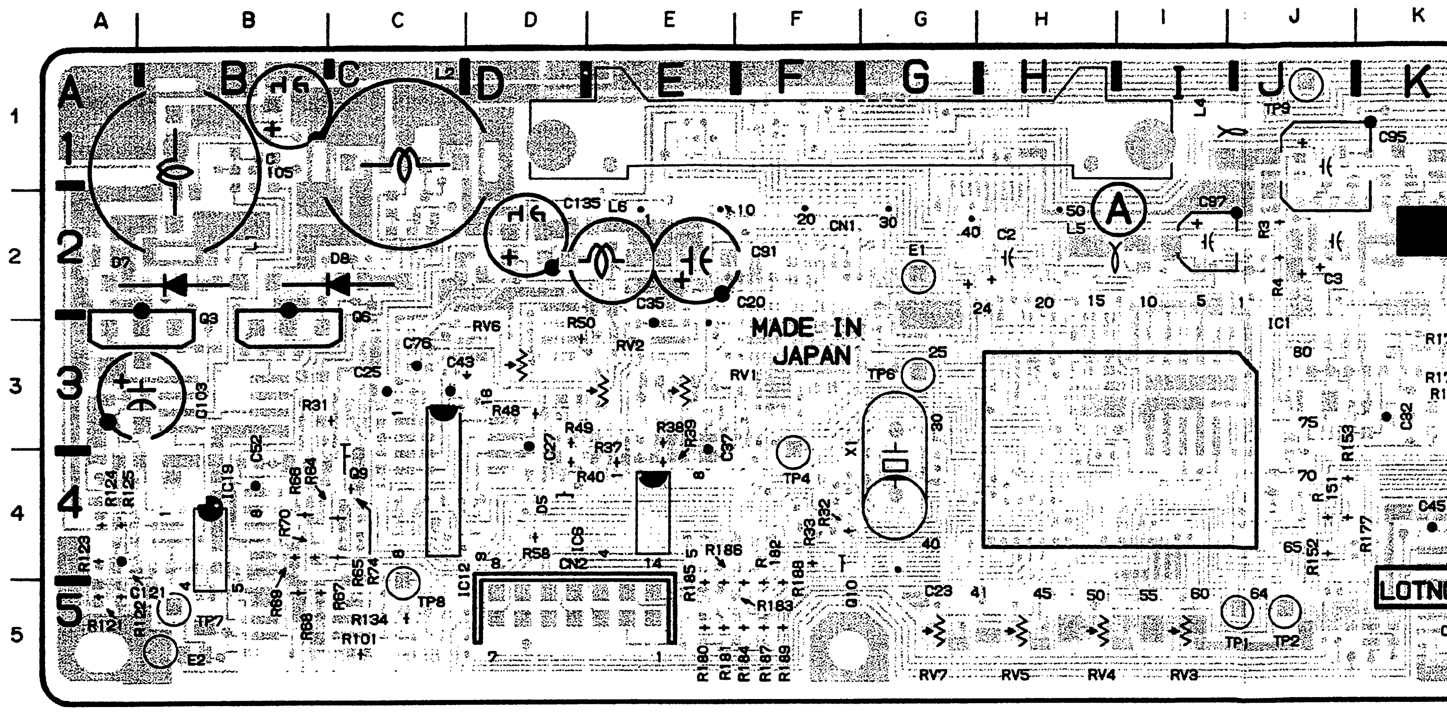
FL-55P;AUDIO HEAD AMP,RELAY BOARD


LOT NO.
FL-55
1-625-893-12
MADE IN JAPAN
HEAD
TC
CH-1
CH-2
IC1
R14
R4
R3
R13
R1
R11
R12
R2
C11
C1
C3
C12
C2
D1
RY-1
Q1
Q11
Q2
R5
C4
E1
SL
I1
SL1
TP1
TP11
RV11
RV1
B
C
E
1
4
5
7
8
10

FL-55/55P -COMPONENT SIDE-
1-625-893-12
BVW-400A
BVW-400AP

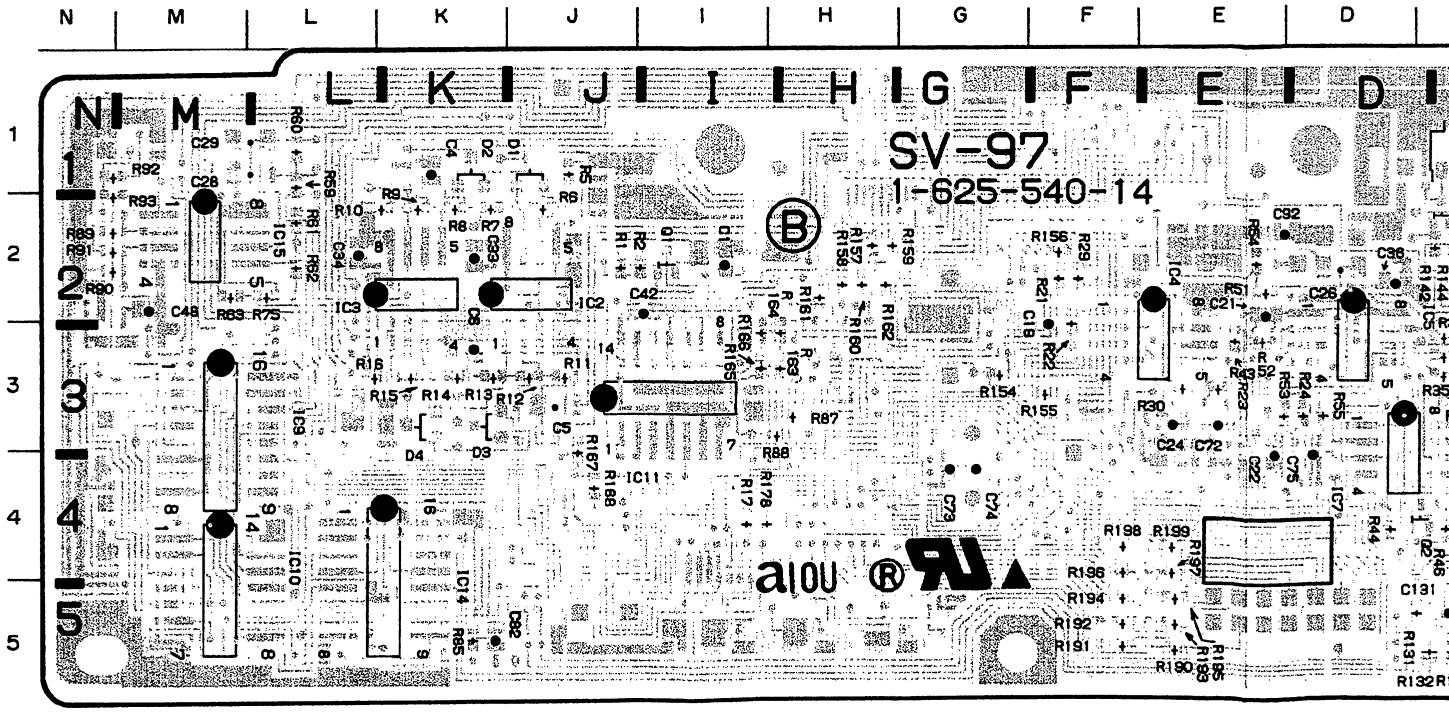
CN1	F-2
CN2	D-4
D1	J-1
D2	K-1
D3	K-3
D4	K-4
D5	D-4
D7	A-2
D8	C-2
E1	G-2
E2	B-5
E3	N-1
E4	N-4
IC1	J-3
IC2	J-2
IC3	L-2
IC4	E-2
IC5	D-3
IC6	D-4
IC7	D-4
IC9	L-3
IC10	L-4
IC11	J-4
IC12	C-4
IC14	K-5
IC15	L-2
IC16	C-5
IC17	A-3
IC18	B-4
IC19	B-4
IC22	M-3
Q1	I-2
Q2	D-4
Q3	B-3
Q4	B-1
Q5	A-1
Q6	C-3
Q7	C-2
Q8	C-1
Q9	C-4
Q10	F-5
RV1	F-3
RV2	E-3
RV3	I-5
RV4	H-5
RV5	H-5
RV6	D-3
RV7	G-5
TP1	J-5
TP2	J-5
TP3	N-3
TP4	F-4
TP5	M-4
TP6	G-3
TP7	B-5
TP8	C-5
TP9	J-1
X1	F-3

SV-97AP;DRUM/CAPSTAN SERVO


A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
MADE IN
JAPAN
CN1
CN2
X1
TP4
TP6
TP7
TP8
TP9
RV1
RV2
RV3
RV4
RV5
RV6
RV7
E1
E2
IC1
LOTNO

SV-97A/9

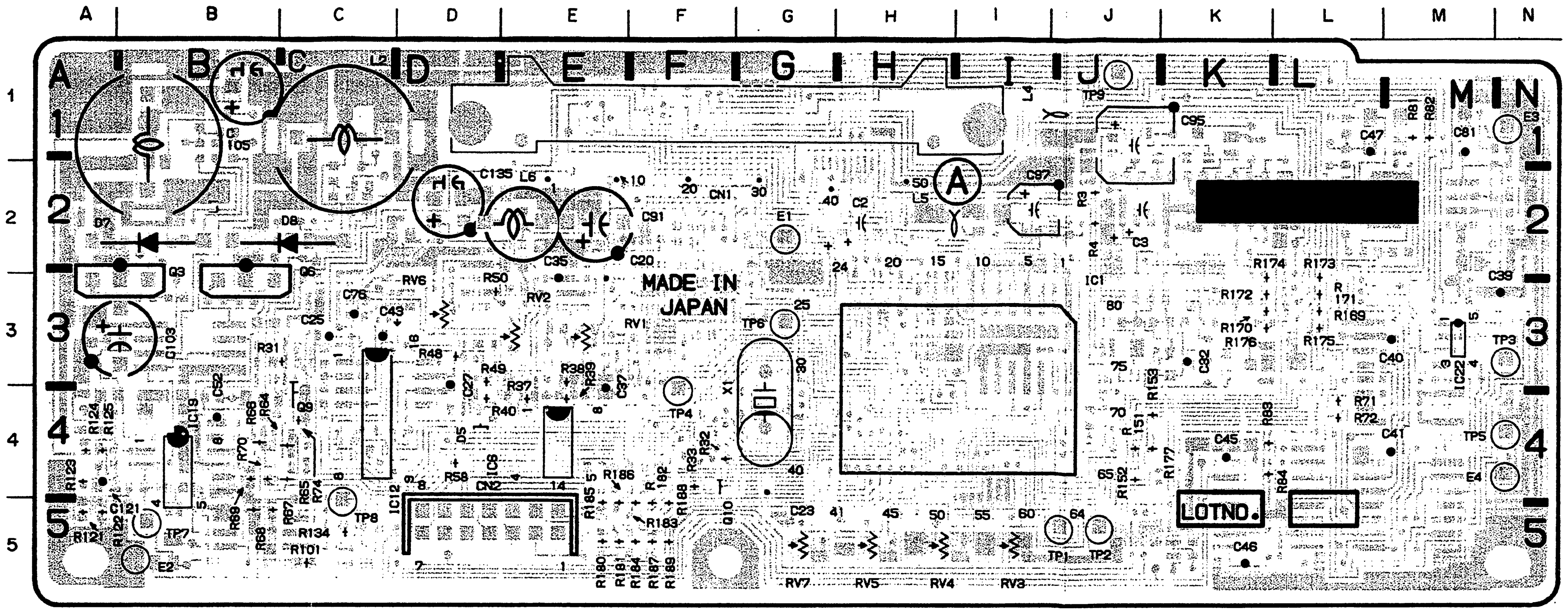
1-625-540-14
BVW-400A
BVW-400AP


N
M
L
K
J
I
H
G
F
E
D
1
2
3
4
5
SV-97
1-625-540-14
B
IC1
IC2
IC3
IC11
IC10
IC14
IC15
IC7
IC9

SV-97A/9

1-625-540-14
BVW-400A
BVW-400AP

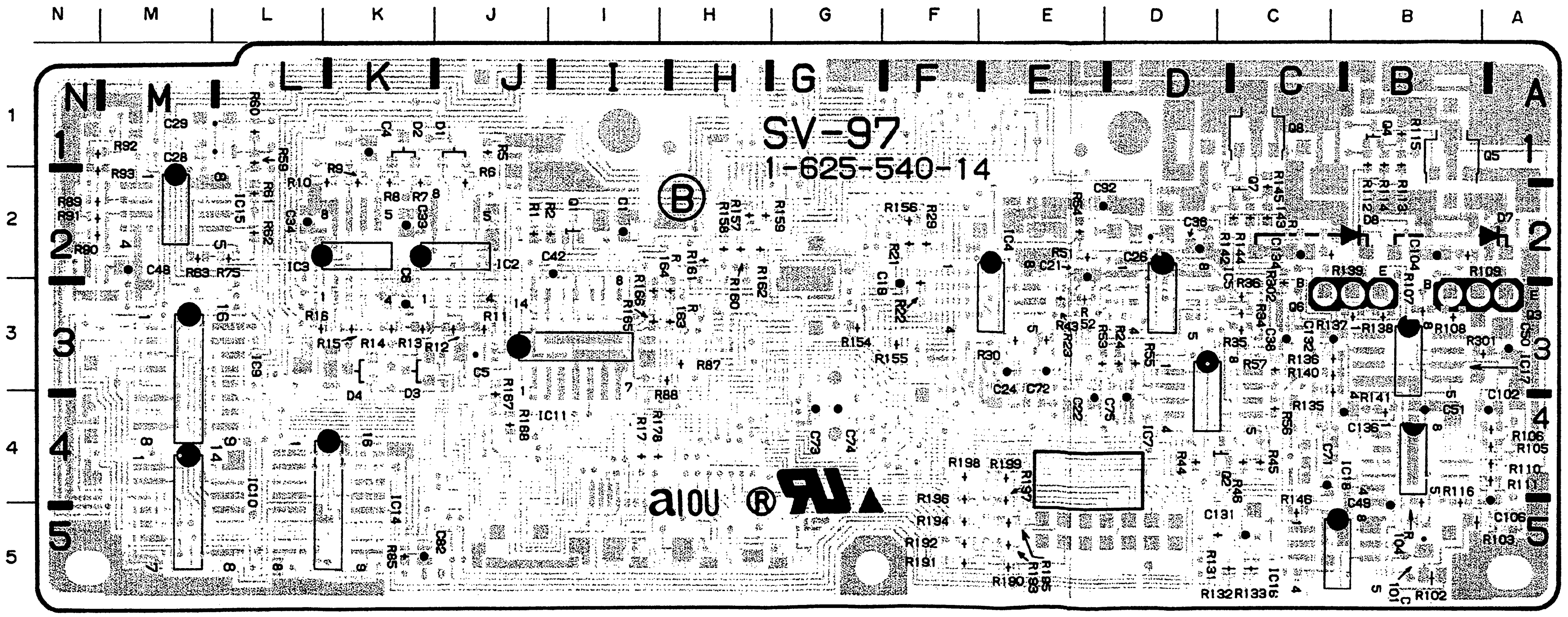
SV-97AP;DRUM/CAPSTAN SERVO


A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
MADE IN
JAPAN
LOTNO.
CN1
CN2
IC1
IC12
X1
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
E1
E2
E3
E4
RV1
RV2
RV3
RV4
RV5
RV6
RV7

[redacted]

SV-97A/97AP -COMPONENT SIDE-

1-625-540-14
BVW-400A
BVW-400AP

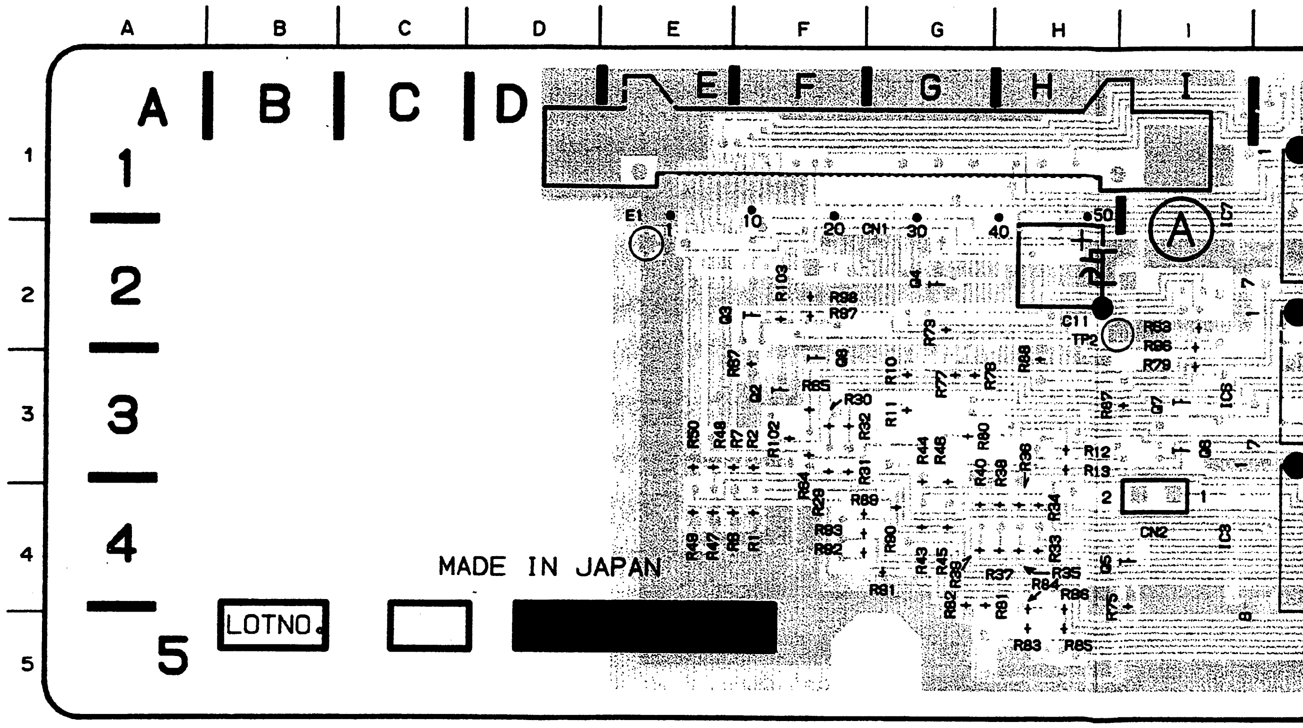

N
M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
SV-97
1-625-540-14
IC2
IC3
IC10
IC11
IC14
IC15
IC18

SV-97A/97AP -SOLDERING SIDE-

1-625-540-14
BVW-400A
BVW-400AP

SY-117CP;SYSTEM CONTROL

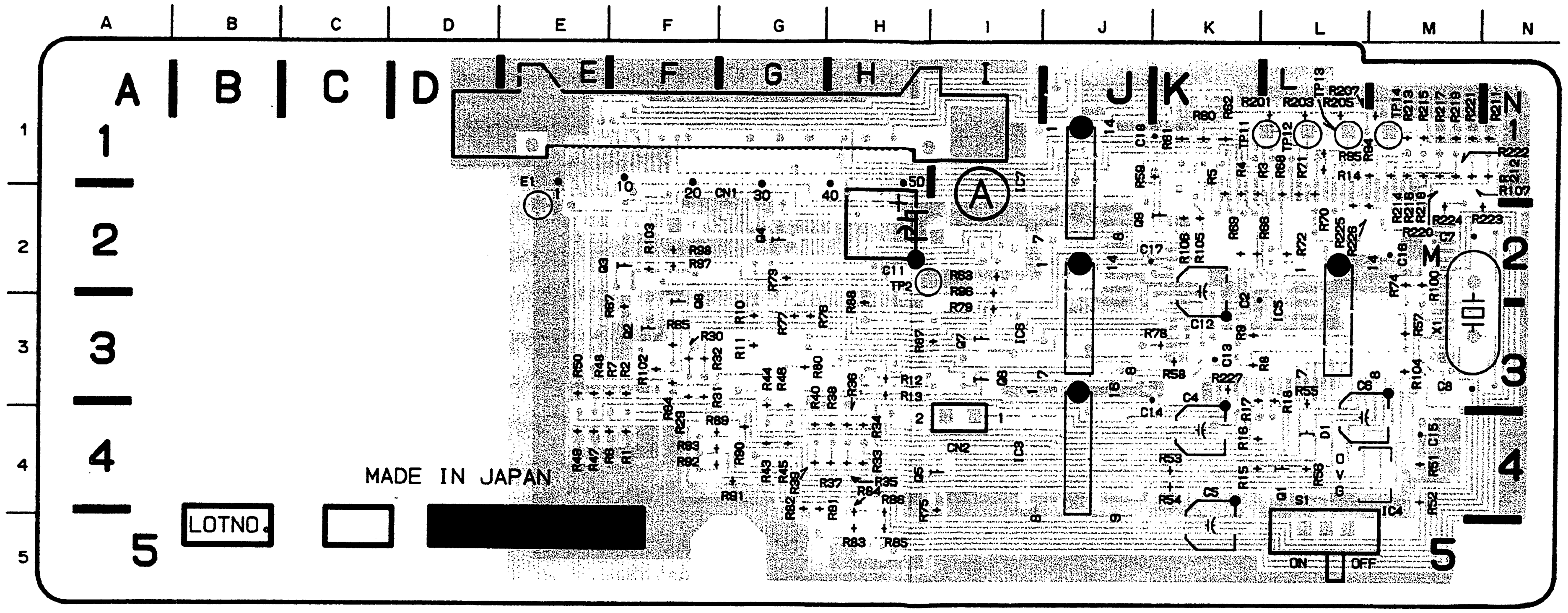
CN1	G-2
CN2	I-4
D1	L-4
E1	E-1
IC1	L-4
IC3	I-4
IC4	M-4
IC5	L-3
IC6	I-3
IC7	I-1
Q1	L-4
Q2	F-3
Q3	F-2
Q4	G-2
Q5	H-4
Q6	I-3
Q7	I-3
Q8	F-3
Q9	J-2
S1	L-4
TP2	H-2
TP11	K-1
TP12	L-1
TP13	L-1
TP14	M-1
X1	M-3


A
B
C
D
E
F
G
H
I
1
2
3
4
5
E1
CN1
10
20
30
40
50
A
C11
TP2
CN2
R103
R98
R97
R79
R10
R11
R30
R31
R32
R65
R44
R46
R40
R90
R38
R36
R12
R13
R34
R33
R35
R37
R84
R86
R83
R85
R81
R82
R89
R91
R93
R92
R45
R43
R102
R50
R48
R47
R7
R2
R8
R1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
IC6
IC3
MADE IN JAPAN
LOTNO.

SY-
1-625-
BVW-4
BVW-4

SY-117CP;SYSTEM CONTROL

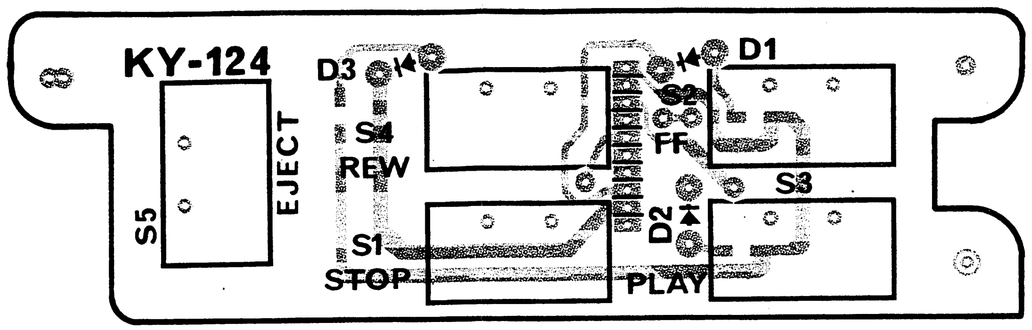
2
4
4
1
4
4
4
3
3
1
4
3
2
2
4
3
3
3
2
4
2
1
1
1
1
3


A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
MADE IN JAPAN
LOTNO.
CN1
CN2
E1
TP2
X1
S1
ON
OFF
IC4
IC5
IC6
A

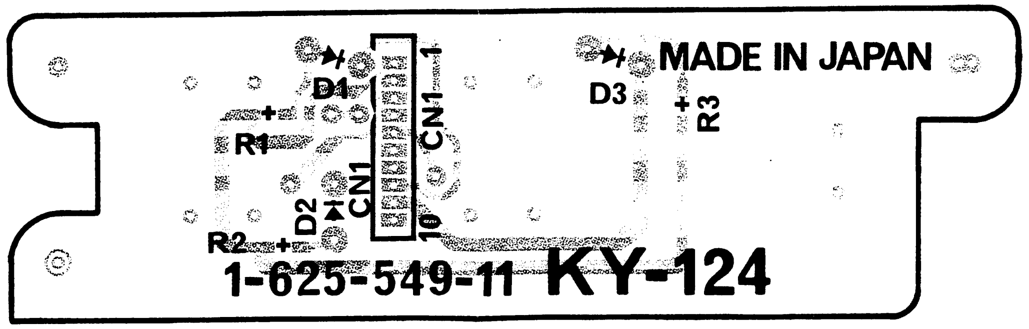
SY-117C/117CP -COMPONENT SIDE-

1-625-539-21
BVW-400A
BVW-400AP

KY-124;KEY BOARD


KY-124
D3
D1
S4
REW
S2
FF
S3
D2
S5
EJECT
S1
STOP
PLAY

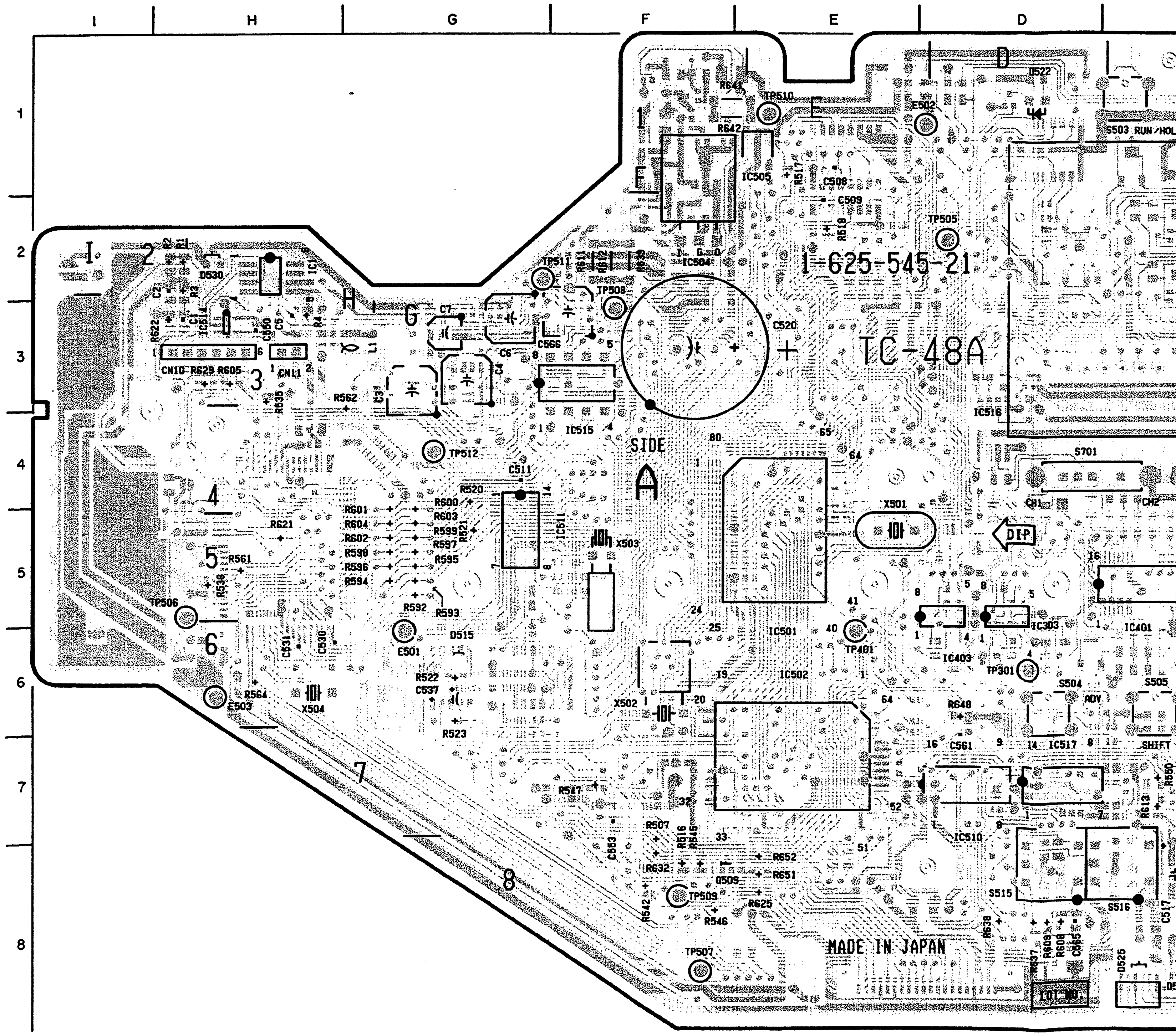
KY-124 -COMPONENT SIDE-
1-625-549-11
BVW-400A
BVW-400AP


MADE IN JAPAN
D1
D3
R3
R1
CN1
1
10
D2
R2
1-625-549-11 KY-124

KY-124 -SOLDERING SIDE-
1-625-549-11
BVW-400A
BVW-400AP

BT1	I-6
CN1	B-8
CN2	E-8
CN3	C-8
CN10	H-3
CN11	H-3
D101	A-7
D102	A-7
D103	C-2
D104	B-8
D201	A-7
D202	A-7
D203	C-3
D301	D-6
D401	E-5
D508	F-2
D511	E-4
D514	G-7
D515	G-6
D522	D-1
D523	D-8
D524	C-8
D525	C-8
D526	F-2
D527	E-1
D528	F-1
D529	D-3
D530	H-2
E101	B-6
E102	B-8
E501	G-6
E502	D-1
E503	H-6
IC1	H-2
IC101	A-6
IC102	B-5
IC103	C-2
IC201	A-6
IC202	A-5
IC203	C-3
IC301	B-6
IC302	C-5
IC303	D-6
IC401	C-6
IC403	D-6
IC501	E-6
IC502	E-6
IC503	H-4
IC504	F-2
IC505	E-1
IC506	F-6
IC507	D-1
IC508	E-1
IC509	E-2
IC510	D-7
IC511	F-5
IC512	G-3
IC513	G-6
IC514	H-3
IC515	F-4
IC516	D-4
IC517	D-7
IC518	F-2
IC519	D-2
IC520	G-3
IC521	G-4
IC522	E-3
IC523	E-7
IC701	B-1
IC702	D-4
IC703	C-1
PH1	A-3
Q101	B-8
Q102	A-2
Q103	B-2
Q104	B-2
Q105	B-2
Q106	A-1
Q107	A-1
Q201	B-8
Q202	A-4
Q203	B-2
Q204	B-2
Q205	B-3
Q206	A-4
Q207	A-3
Q501	E-1
Q502	C-3
Q503	D-1
Q504	D-8
Q509	F-8
Q510	F-2
Q511	F-1
Q512	F-1
Q701	B-1
Q702	D-3
RV101	A-1
RV201	A-3
RV301	D-4
RV302	D-5
RV401	C-6
RV402	D-5
RV701	C-1
RV702	C-1
S101	B-7
S102	B-5
S103	C-2
S201	A-7
S202	A-4
S203	C-2
S501	B-1
S502	C-7
S503	C-1
S504	D-6
S505	C-6
S506	C-1
S507	B-6
S508	B-7
S509	C-4
S510	A-7
S511	H-3
S513	C-6
S514	A-1
S515	D-8
S516	C-8
S517	D-7
S518	D-7
S701	D-4
TP101	B-5
TP201	B-5
TP301	D-6
TP302	B-7
TP401	E-6
TP402	B-7
TP505	D-2
TP506	I-6
TP507	F-8
TP508	F-3
TP509	F-8
TP510	E-1
TP511	F-2
TP512	G-4
X501	E-4
X502	F-6
X503	F-5
X504	H-6

HP-43;EARPHONE
TC-48AP;TIME CODE,LEVEL CONTROL,MONITOR,SW,INDICTOR
VR-70;VOLUME CONTROL


I
H
G
F
E
D
1
2
3
4
5
6
7
8
1-625-545-21
TC-48A
SIDE
A
MADE IN JAPAN
S503 RUN/HOL
DIP
S701
S504
S505
S515
S516
IC501
IC502
IC505
IC515
IC516
IC517
IC510
IC303
IC401
IC403
X501
X502
X503
X504
TP505
TP506
TP507
TP509
TP510
TP511
TP512
TP301
TP401
E501
E502
E503
CN10
CN11
D530
D515
D522
ADY
SHIFT
CH1
CH2

HP-43;EARPHONE
TC-48AP;TIME CODE,LEVEL CONTROL,MONITOR,SW,INDICTOR
VR-70;VOLUME CONTROL

-1
-7
-5
-2
-7
-4
-2
-1
-7
-1
-6
-6
-1
-6
-7
-4
-7
-3
-6
-1
-8
-8
-7
-7
-4

-5
-5
-6
-7
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-3
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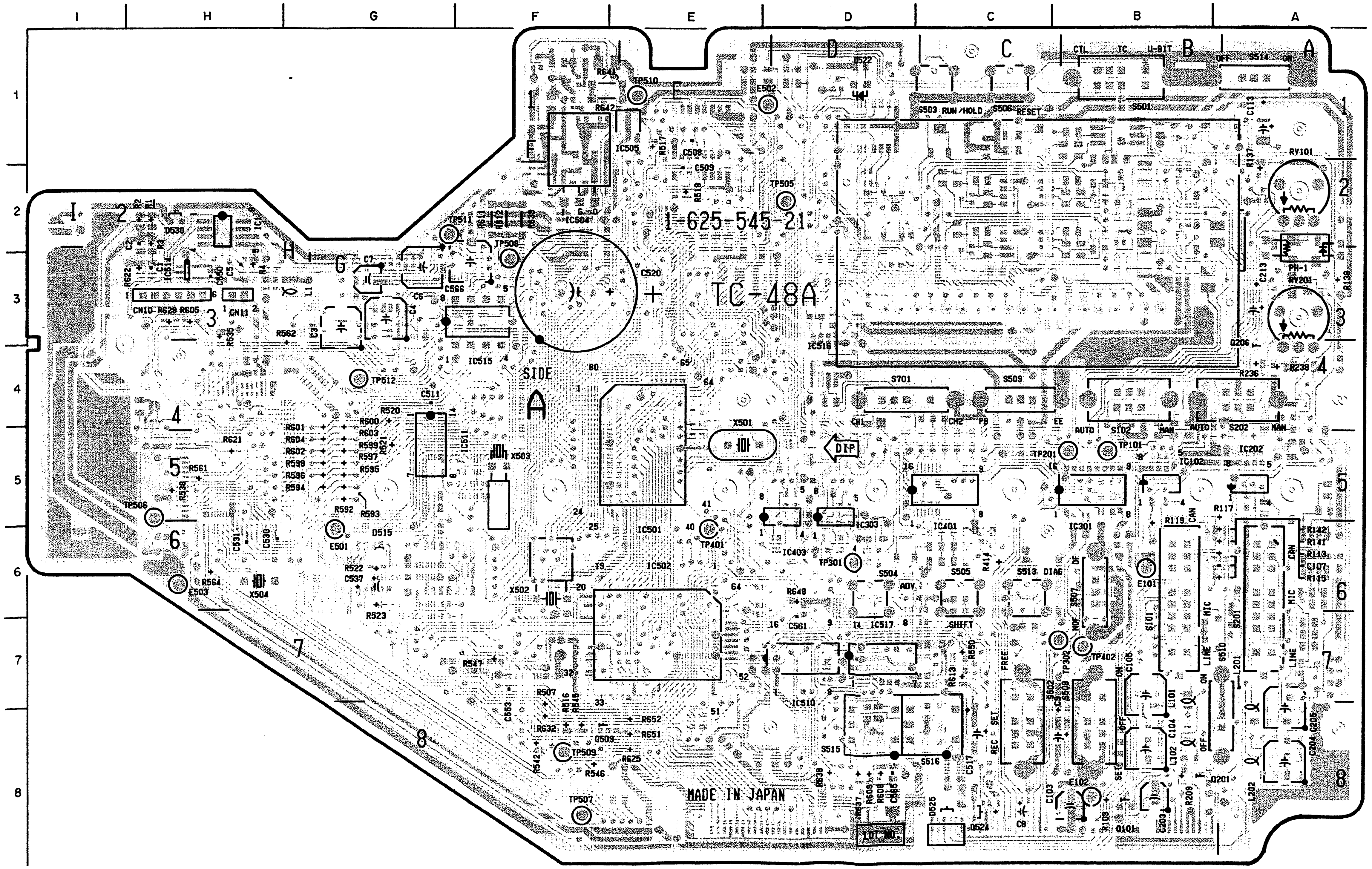
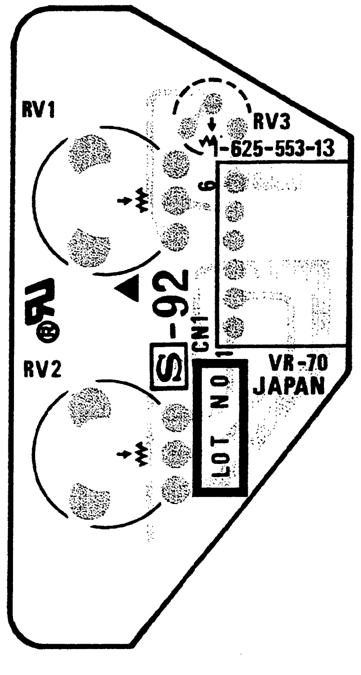
-1
-2
-4

-4
-6
-5
-6


I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
1-625-545-21
TC-48A
SIDE
A
MADE IN JAPAN
LOT NO.
S503 RUN/HOLD
S506 RESET
S501
CTL
TC
U-BIT
OFF
S514
ON
S701
S509
CH1
CH2
PB
EE
AUTO
S102
MAN
S202
DIP
S504
ADV
S505
SHIFT
S513
DIAG
FREE
REC
SET
S515
S516
IC501
IC502
IC503
IC504
IC505
IC510
IC511
IC515
IC516
IC517
IC301
IC303
IC401
IC403
IC102
IC202
X501
X502
X503
X504
RV101
RV201
PH-1
TP501
TP505
TP506
TP507
TP508
TP509
TP510
TP511
TP512
TP101
TP201
TP301
TP302
TP401
TP402
E101
E102
E501
E502
E503
CN10
CN11
D530
D515
D522
D524
D525
Q101
Q201
Q206
C520
MIC
LINE
S101
S201
S510

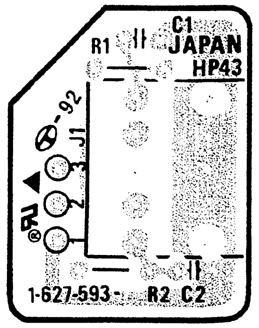
TC-48A/48AP -COMPONENT SIDE-

1-625-545-21
BVW-400A
BVW-400AP


RV1
RV2
RV3
1-625-553-13
CN1
S-92
LOT NO.
VR-70
JAPAN

VR-70 -COMPONENT SIDE-

1-625-553-13
BVW-400A
BVW-400AP

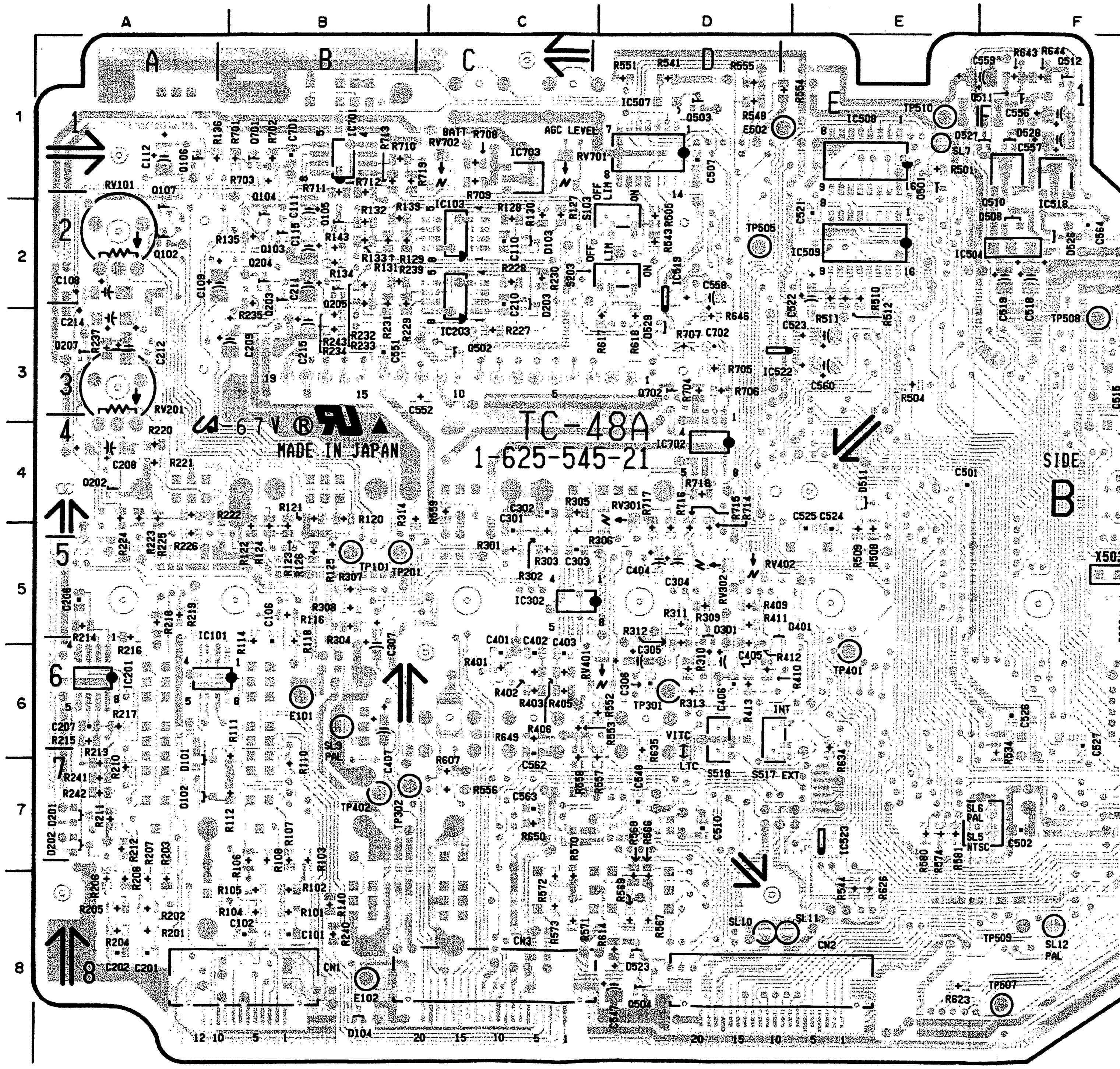

R1
C1
JAPAN
HP43
J1
1-627-593
R2
C2

HP-43 -COMPONENT SIDE-

1-627-593-12
BVW-400A
BVW-400AP

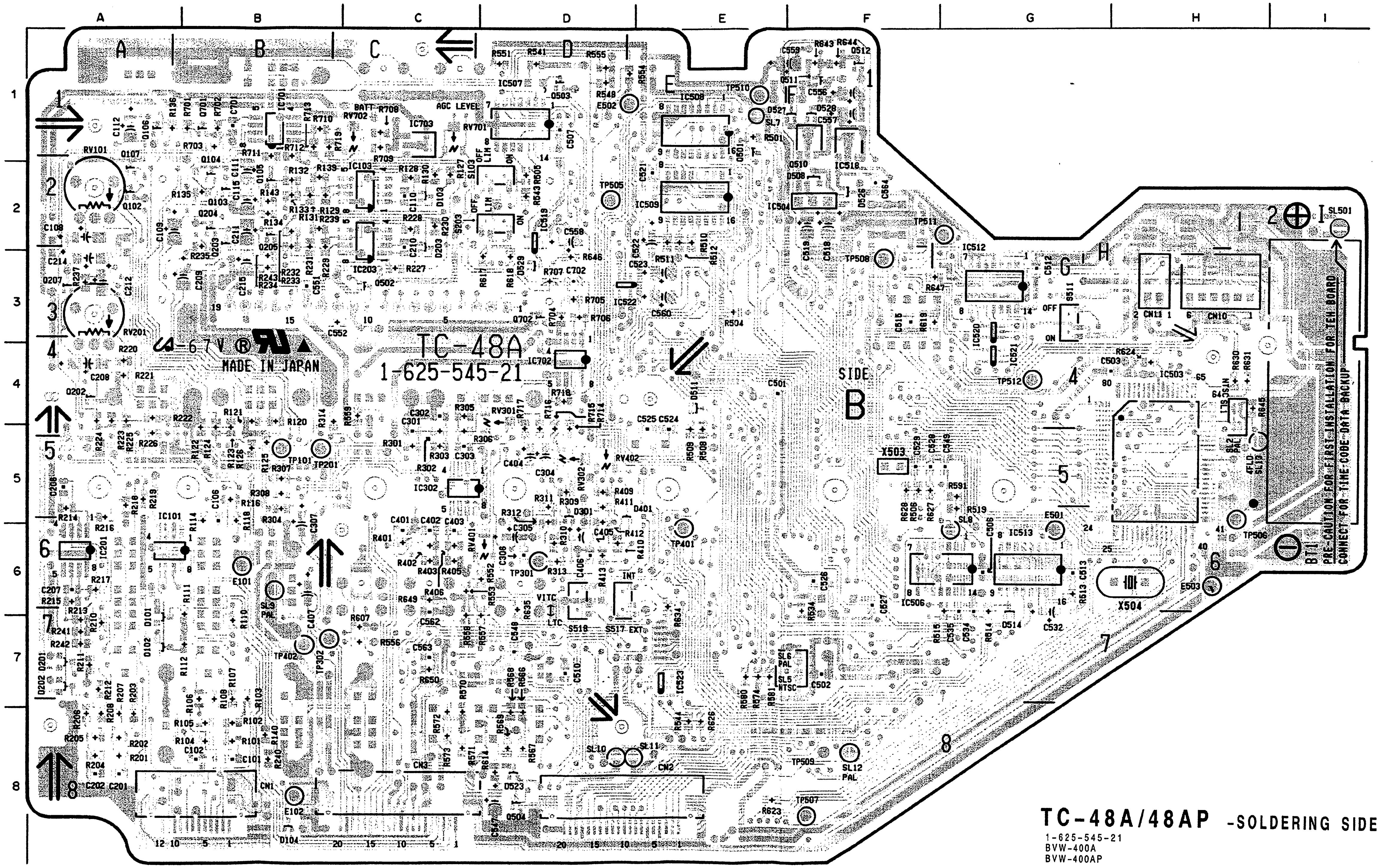
BT1	I-6	IC507	D-1	RV702	C-1
		IC508	E-1		
CN1	B-8	IC509	E-2	S101	B-7
CN2	E-8	IC510	D-7	S102	B-5
CN3	C-8	IC511	F-5	S103	C-2
CN10	H-3	IC512	G-3	S201	A-7
CN11	H-3	IC513	G-6	S202	A-4
		IC514	H-3	S203	C-2
D101	A-7	IC515	F-4	S501	B-1
D102	A-7	IC516	D-4	S502	C-7
D103	C-2	IC517	D-7	S503	C-1
D104	B-8	IC518	F-2	S504	D-6
D201	A-7	IC519	D-2	S505	C-6
D202	A-7	IC520	G-3	S506	C-1
D203	C-3	IC521	G-4	S507	B-6
D301	D-6	IC522	E-3	S508	B-7
D401	E-5	IC523	E-7	S509	C-4
D508	F-2	IC701	B-1	S510	A-7
D511	E-4	IC702	D-4	S511	H-3
D514	G-7	IC703	C-1	S513	C-6
D515	G-6			S514	A-1
D522	D-1	PH1	A-3	S515	D-8
D523	D-8			S516	C-8
D524	C-8	Q101	B-8	S517	D-7
D525	C-8	Q102	A-2	S518	D-7
D526	F-2	Q103	B-2	S701	D-4
D527	E-1	Q104	B-2		
D528	F-1	Q105	B-2	TP101	B-5
D529	D-3	Q106	A-1	TP201	B-5
D530	H-2	Q107	A-1	TP301	D-6
		Q201	B-8	TP302	B-7
E101	B-6	Q202	A-4	TP401	E-6
E102	B-8	Q203	B-2	TP402	B-7
E501	G-6	Q204	B-2	TP505	D-2
E502	D-1	Q205	B-3	TP506	I-6
E503	H-6	Q206	A-4	TP507	F-8
		Q207	A-3	TP508	F-3
IC1	H-2	Q501	E-1	TP509	F-8
IC101	A-6	Q502	C-3	TP510	E-1
IC102	B-5	Q503	D-1	TP511	F-2
IC103	C-2	Q504	D-8	TP512	G-4
IC201	A-6	Q509	F-8		
IC202	A-5	Q510	F-2	X501	E-4
IC203	C-3	Q511	F-1	X502	F-6
IC301	B-6	Q512	F-1	X503	F-5
IC302	C-5	Q701	B-1	X504	H-6
IC303	D-6	Q702	D-3		
IC401	C-6				
IC403	D-6	RV101	A-1		
IC501	E-6	RV201	A-3		
IC502	E-6	RV301	D-4		
IC503	H-4	RV302	D-5		
IC504	F-2	RV401	C-6		
IC505	E-1	RV402	D-5		
IC506	F-6	RV701	C-1		

TC-48AP;TIME CODE,LEVEL CONTROL,MONITOR,SW,INDICTOR


A
B
C
D
E
F
1
2
3
4
5
6
7
8
TC-48A
1-625-545-21
MADE IN JAPAN
SIDE
B
AGC LEVEL
BATT
VITC
LTC
INT
EXT
PAL
NTSC
RV101
RV201
RV301
RV302
RV401
RV402
RV701
RV702
TP101
TP201
TP301
TP302
TP401
TP402
TP505
TP507
TP508
TP509
TP510
IC101
IC103
IC201
IC203
IC302
IC507
IC508
IC509
IC518
IC522
IC523
IC702
IC703
CN1
CN2
CN3
E101
E102
E502
S518
S517
SL10
SL11
SL12

TC-48AP;TIME CODE,LEVEL CONTROL,MONITOR,SW,INDICTOR

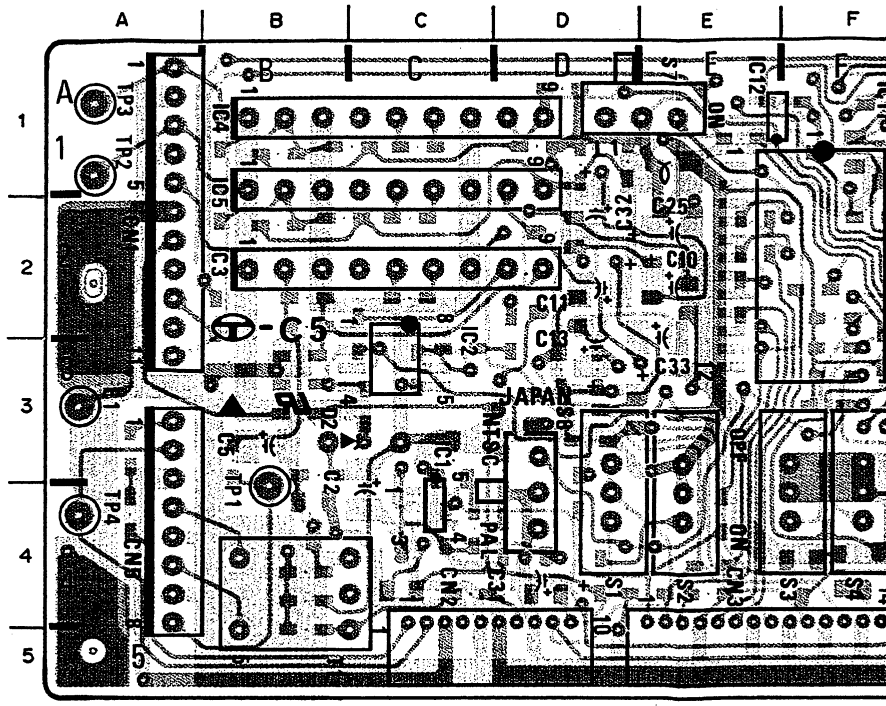
1
7
5
2
7
4
2
1
7
1
6
6
1
6
7
4
7
3
6
1
8
8
7
7
4
5
5
6
7
6
7
2
6
8
3
8
1
2
4
4
6
5
6


A
B
C
D
E
F
G
H
I
1
2
3
4
5
6
7
8
TC-48A
1-625-545-21
MADE IN JAPAN
SIDE
B
AGC LEVEL
BATT
PRE-CAUTION FOR FIRST INSTALLATION FOR TEN BOARD
CONNECT FOR TIME CODE DATA BACKUP
X504
CN1
CN2
CN3
CN10
CN11

TC-48A/48AP -SOLDERING SIDE-
1-625-545-21
BVW-400A
BVW-400AP

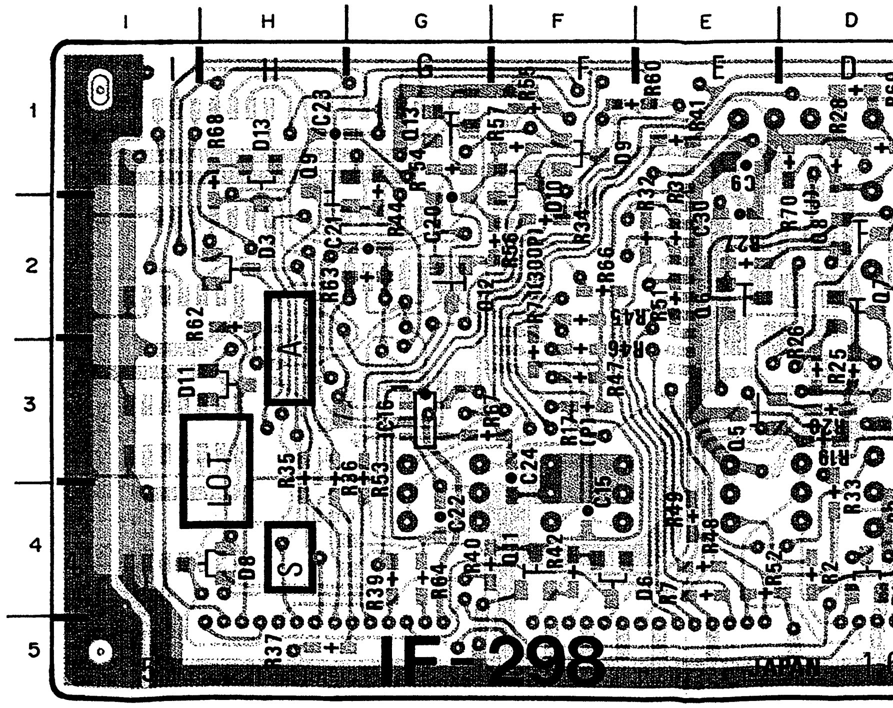
IF-298A;INTERFASE

CN1	A-2
CN2	C-4
CN3	E-4
CN4	H-4
CN5	A-4
D1	D-4
D2	B-3
D3	H-2
D6	E-4
D7	C-3
D8	H-4
D9	F-1
D10	F-2
D11	I-3
D12	H-3
D13	H-1
E1	A-3
IC1	C-3
IC2	C-3
IC3	B-2
IC4	B-1
IC5	B-1
IC6	G-1
IC7	H-1
IC8	I-4
IC9	I-1
IC10	I-3
IC11	F-1
IC12	E-1
IC13	G-2
IC14	H-2
IC15	H-3
IC16	G-3
IC17	H-4
Q1	C-4
Q2	C-3
Q4	B-4
Q5	E-3
Q6	E-3
Q7	D-2
Q8	D-2
Q9	H-1
Q11	F-4
Q12	G-2
Q13	G-1
S1	D-4
S2	E-4
S3	F-5
S4	F-5
S5	G-4
S6	G-4
S7	E-1
S8	D-4
TP1	B-4
TP2	A-1
TP3	A-1
TP4	A-4
T1	B-5



IF-298A

1-634-966-14
BVW-400A
BVW-400AP

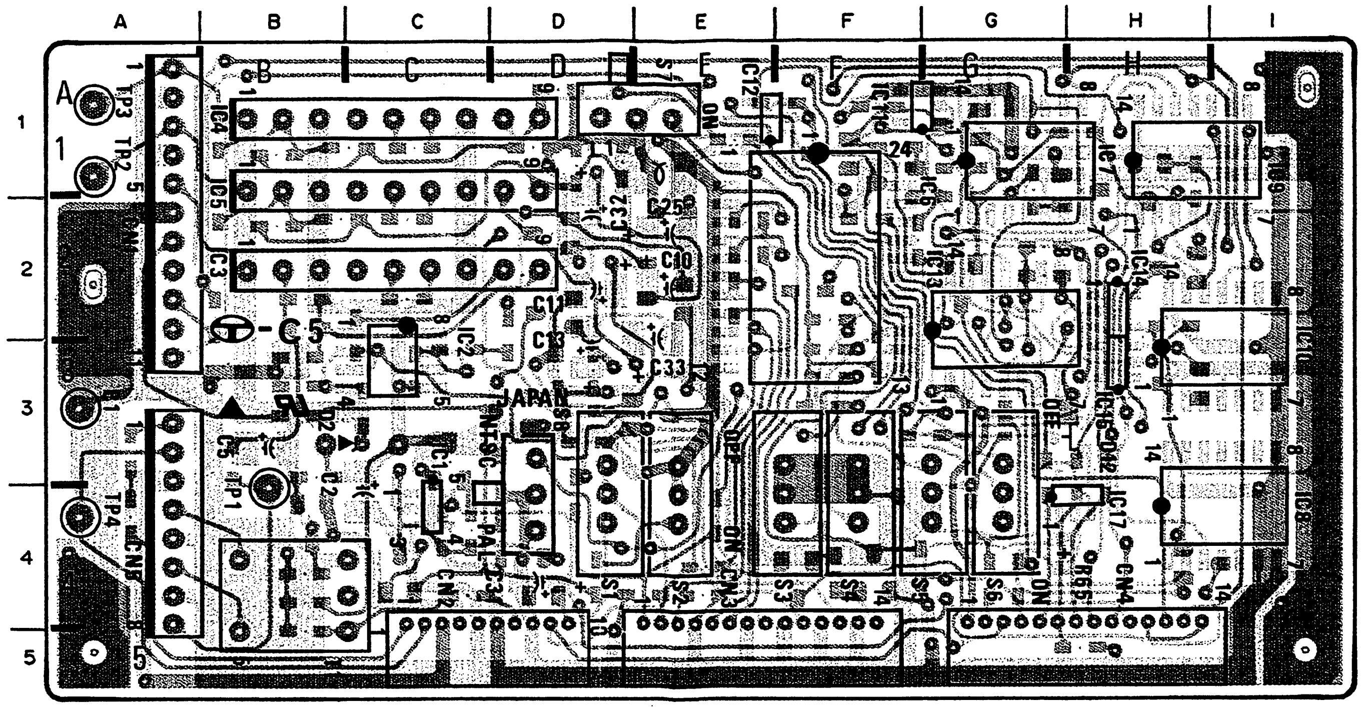


IF-298A

1-634-966-14
BVW-400A
BVW-400AP

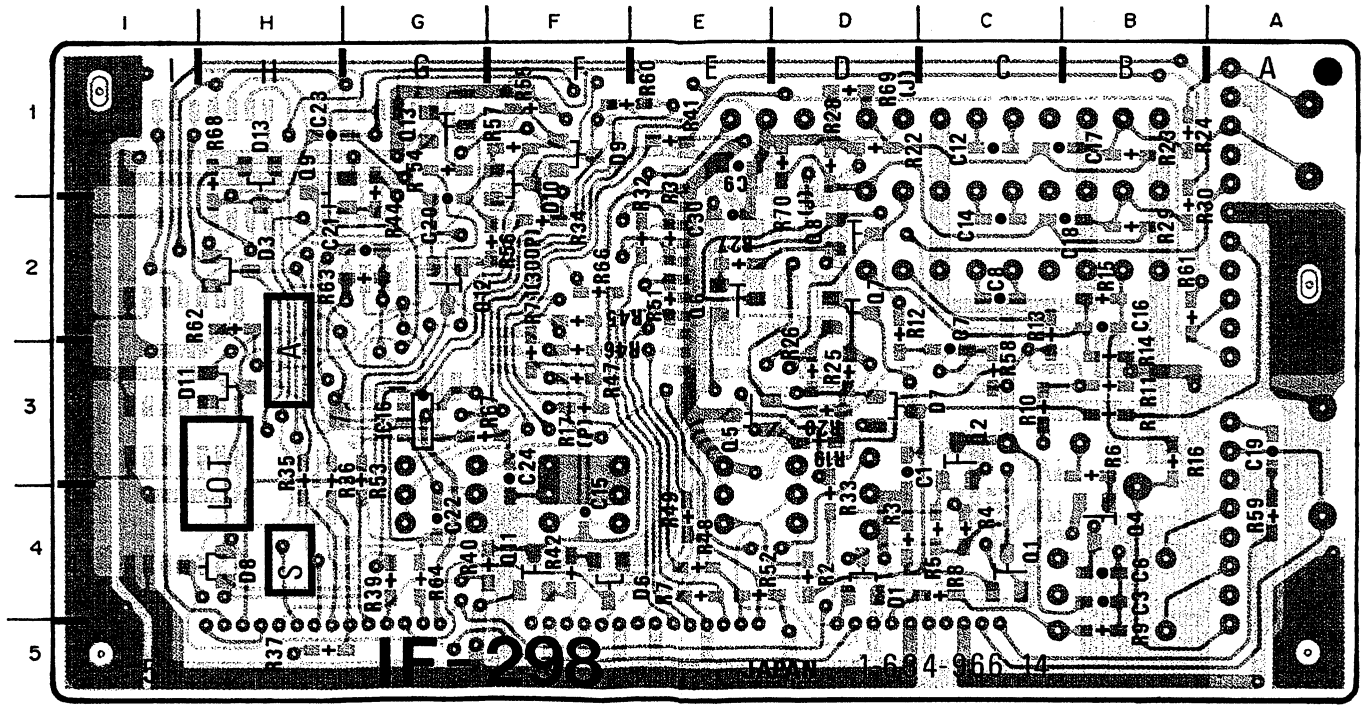
IF-298A;INTERFASE

CN1	A-2
CN2	C-4
CN3	E-4
CN4	H-4
CN5	A-4
D1	D-4
D2	B-3
D3	H-2
D6	E-4
D7	C-3
D8	H-4
D9	F-1
D10	F-2
D11	I-3
D12	H-3
D13	H-1
E1	A-3
IC1	C-3
IC2	C-3
IC3	B-2
IC4	B-1
IC5	B-1
IC6	G-1
IC7	H-1
IC8	I-4
IC9	I-1
IC10	I-3
IC11	F-1
IC12	E-1
IC13	G-2
IC14	H-2
IC15	H-3
IC16	G-3
IC17	H-4
Q1	C-4
Q2	C-3
Q4	B-4
Q5	E-3
Q6	E-3
Q7	D-2
Q8	D-2
Q9	H-1
Q11	F-4
Q12	G-2
Q13	G-1
S1	D-4
S2	E-4
S3	F-5
S4	F-5
S5	G-4
S6	G-4
S7	E-1
S8	D-4
TP1	B-4
TP2	A-1
TP3	A-1
TP4	A-4
T1	B-5


A
B
C
D
E
F
G
H
I
1
2
3
4
5
JAPAN

IF-298AJ/298A -COMPONENT SIDE-

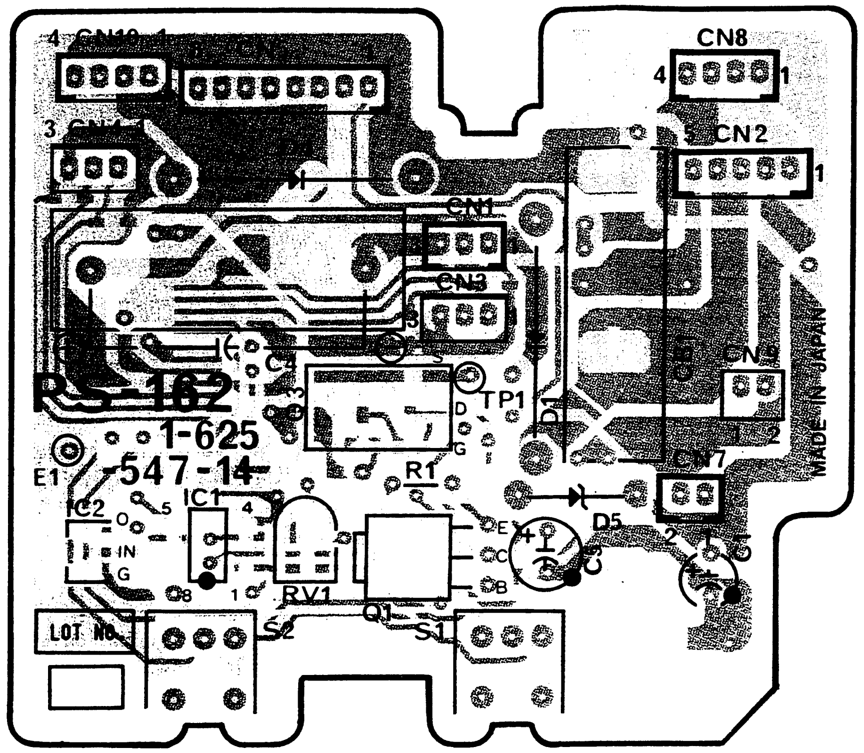
1-634-966-14
BVW-400A
BVW-400AP


I
H
G
F
E
D
C
B
A
1
2
3
4
5
IF-298
JAPAN 1-634-966-14

IF-298AJ/298A -SOLDERING SIDE-

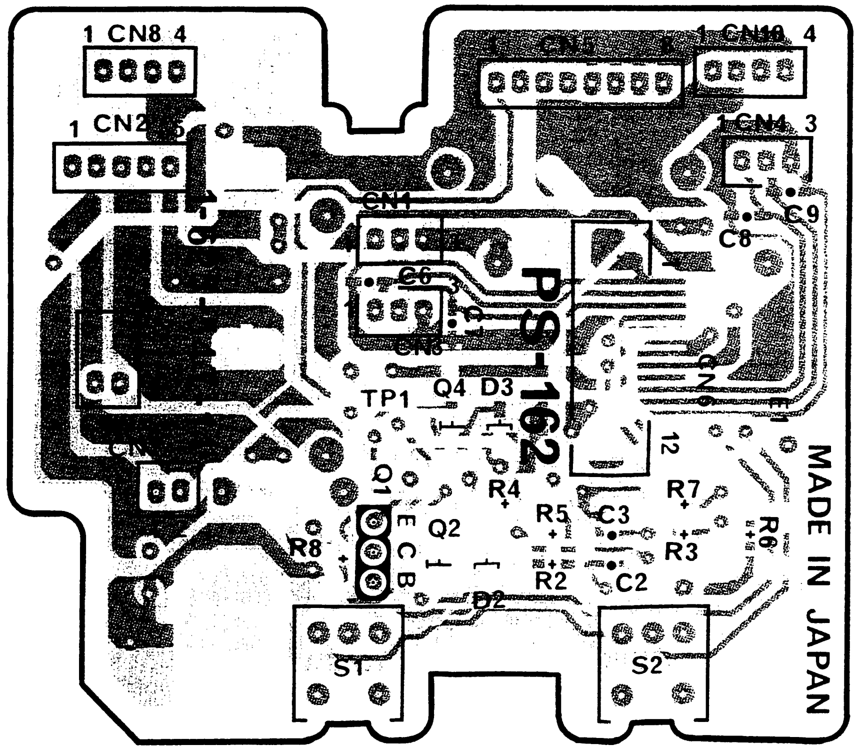
1-634-966-14
BVW-400A
BVW-400AP

PS-162;POWER DISTRIBUTOR


CN10
CN5
CN8
CN4
CN2
CN1
CN3
CN9
CN7
PS-162
1-625
-547-14
E1
IC2
IC1
RV1
Q1
R1
TP1
D5
S1
S2
LOT NO.
MADE IN JAPAN

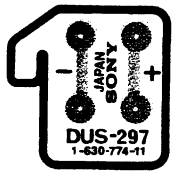
PS-162 -COMPONENT SIDE-

1-625-547-14
BVW-400A
BVW-400AP


CN8
CN2
CN5
CN10
CN4
CN1
CN3
C6
C8
C9
PS-162
TP1
Q4
D3
Q1
Q2
R4
R5
R7
R6
R8
C3
R3
R2
C2
D2
S1
S2
MADE IN JAPAN

PS-162 -SOLDERING SIDE-

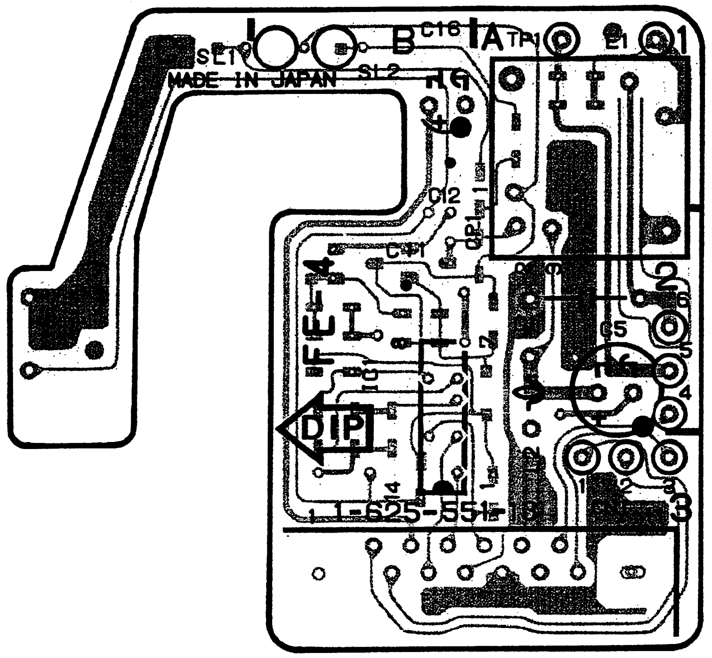
1-625-547-14
BVW-400A
BVW-400AP


-
+
SONY
JAPAN
DUS-297
1-630-774-11

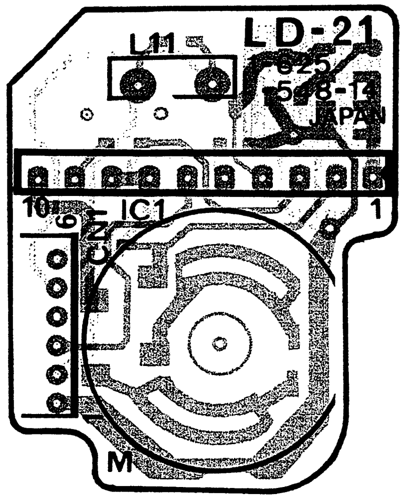
DUS-297
-COMPONENT SIDE-

1-630-774-11
BVW-400A
BVW-400AP

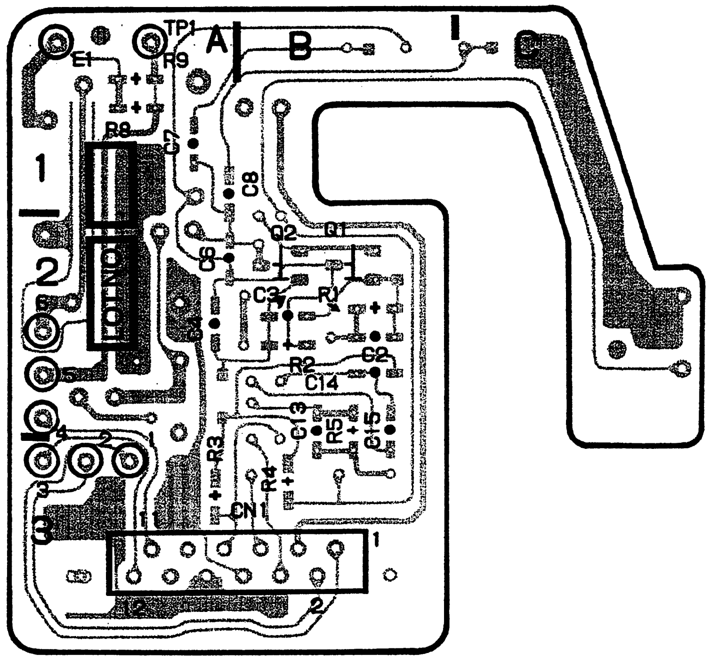
FE-4;FULL ERASE
LD-21;LOADING
SR-40;MECHANICAL POSITION SENSOR
CN-400;INTERFACE CONNECTOR


SL1
SL2
MADE IN JAPAN
B
C16
A
TP1
E1
Q1
C12
C4
FE-4
DIP
C5
1-625-551
1
2
3
4
5
6

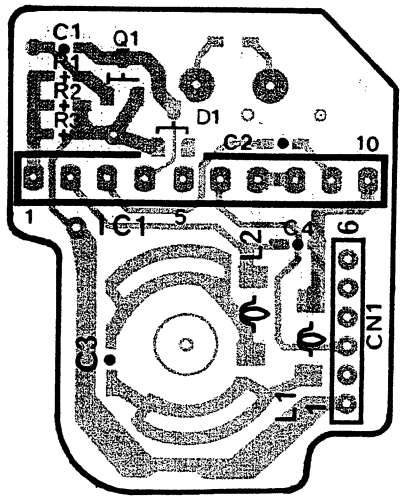
FE-4 -COMPONENT SIDE-
1-625-551-13, 14
BVW-400A
BVW-400AP


L11
LD-21
625-548-14
JAPAN
IC1
10
1
6
M

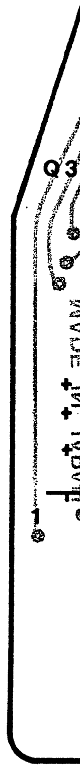
LD-21 -COMPONENT SIDE-
1-625-548-14
BVW-400A
BVW-400AP


TP1
E1
R9
A
B
R8
C7
C8
C6
Q2
Q1
C3
R1
R2
C2
C14
C13
R5
C15
R3
R4
CN1
1
2
3
12

FE-4 -SOLDERING SIDE-
1-625-551-13, 14
BVW-400A
BVW-400AP

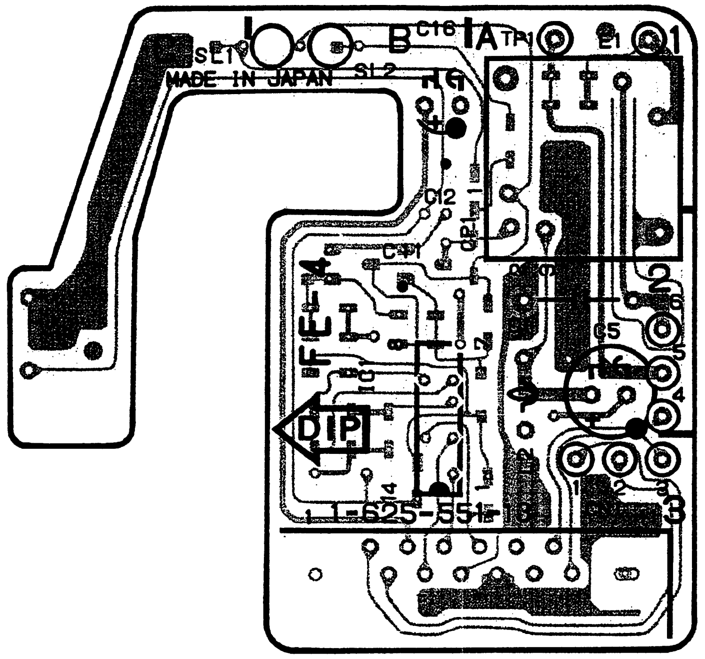

C1
Q1
R1
R2
R3
R4
D1
C2
10
1
5
C4
6
C3
CN1

LD-21 -SOLDERING SIDE-
1-625-548-14
BVW-400A
BVW-400AP

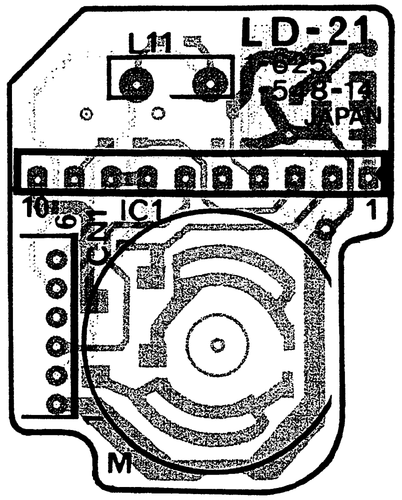


SR-
1-625-
BVW-40
BVW-40

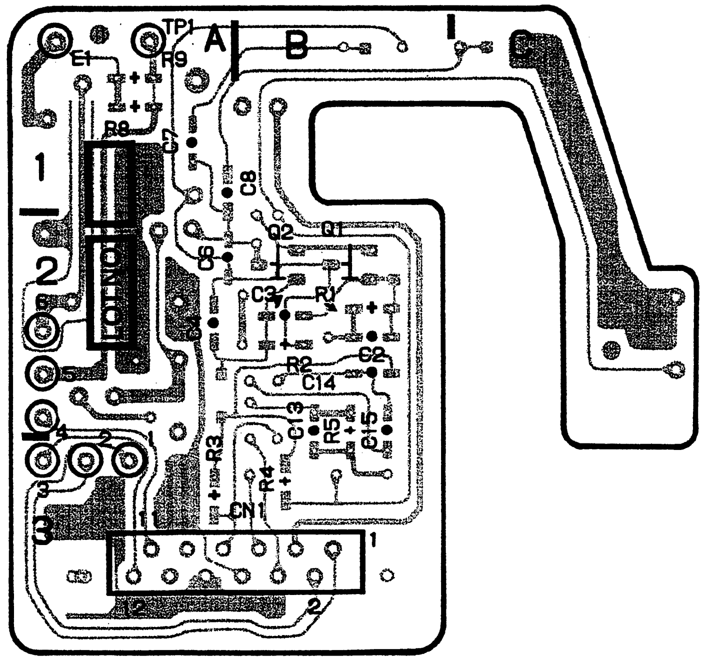
FE-4;FULL ERASE
LD-21;LOADING
SR-40;MECHANICAL POSITION SENSOR
CN-400;INTERFACE CONNECTOR


SE1
MADE IN JAPAN
SL2
B
C16
A
TP1
E1
FE-4
DIP
C12
C5
1-625-551-13

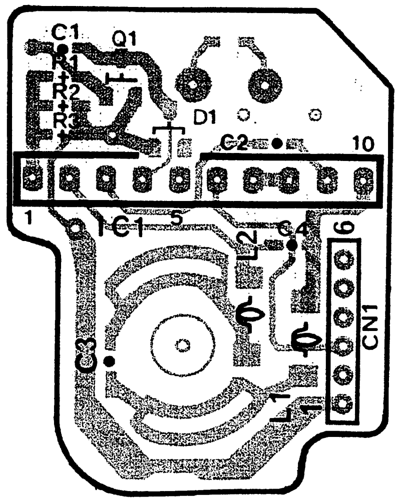
FE-4 -COMPONENT SIDE-
1-625-551-13, 14
BVW-400A
BVW-400AP


L11
LD-21
1-625-548-14
JAPAN
10
IC1
1
M

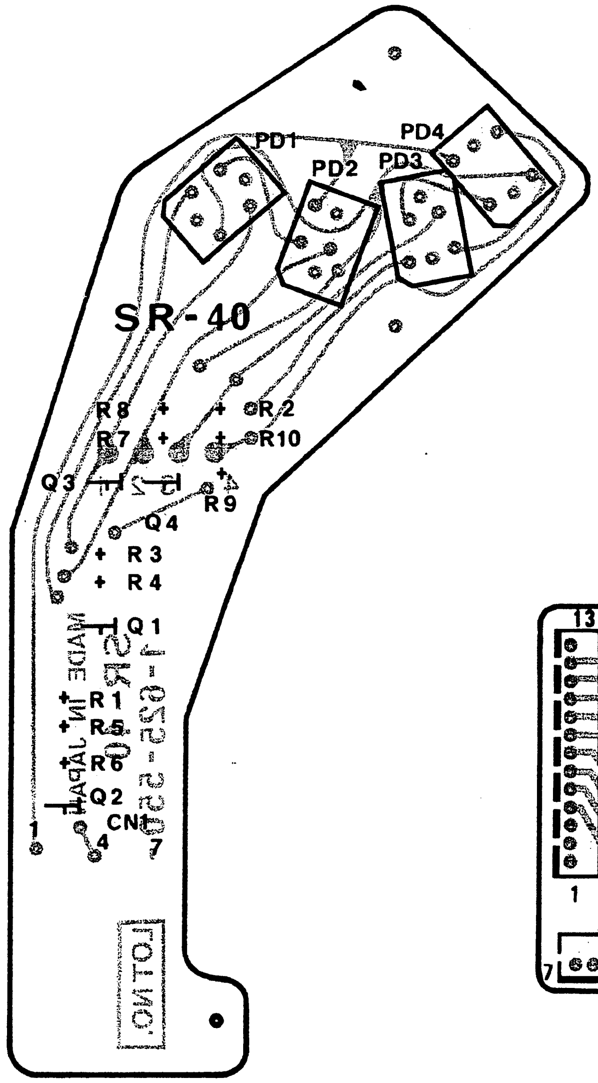
LD-21 -COMPONENT SIDE-
1-625-548-14
BVW-400A
BVW-400AP


TP1
E1
R9
A
B
1
2
3
C7
C8
C6
Q2
Q1
C3
R1
R2
C2
C14
C13
R5
C15
R3
R4
CN1
1
2

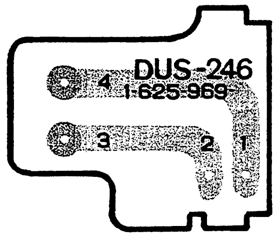
FE-4 -SOLDERING SIDE-
1-625-551-13, 14
BVW-400A
BVW-400AP


C1
Q1
R1
R2
R3
D1
C2
10
1
IC1
5
C4
6
CN1
C3

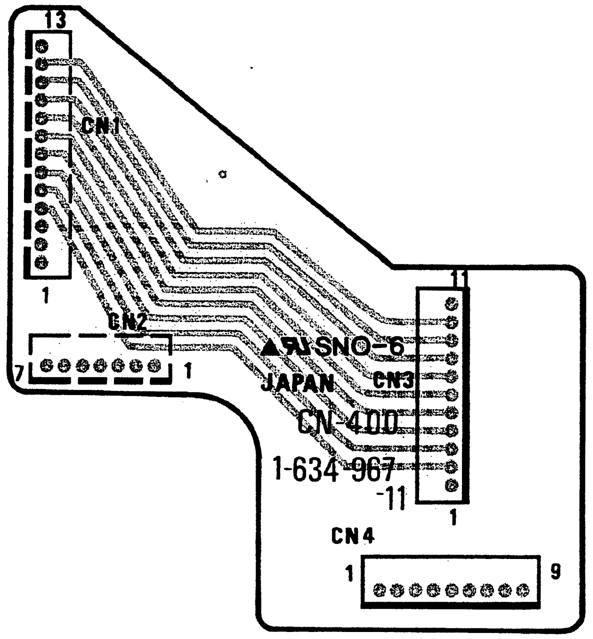
LD-21 -SOLDERING SIDE-
1-625-548-14
BVW-400A
BVW-400AP


PD1
PD2
PD3
PD4
SR-40
R8
R2
R7
R10
Q3
R9
Q4
R3
R4
Q1
R1
R5
R6
Q2
CN1
1
4
7
LOT NO.

SR-40 -COMPONENT SIDE-
1-625-550-13
BVW-400A
BVW-400AP


DUS-246
1-625-969
4
3
2
1

DUS-246 -COMPONENT SIDE-
1-625-969-13
BVW-400A
BVW-400AP

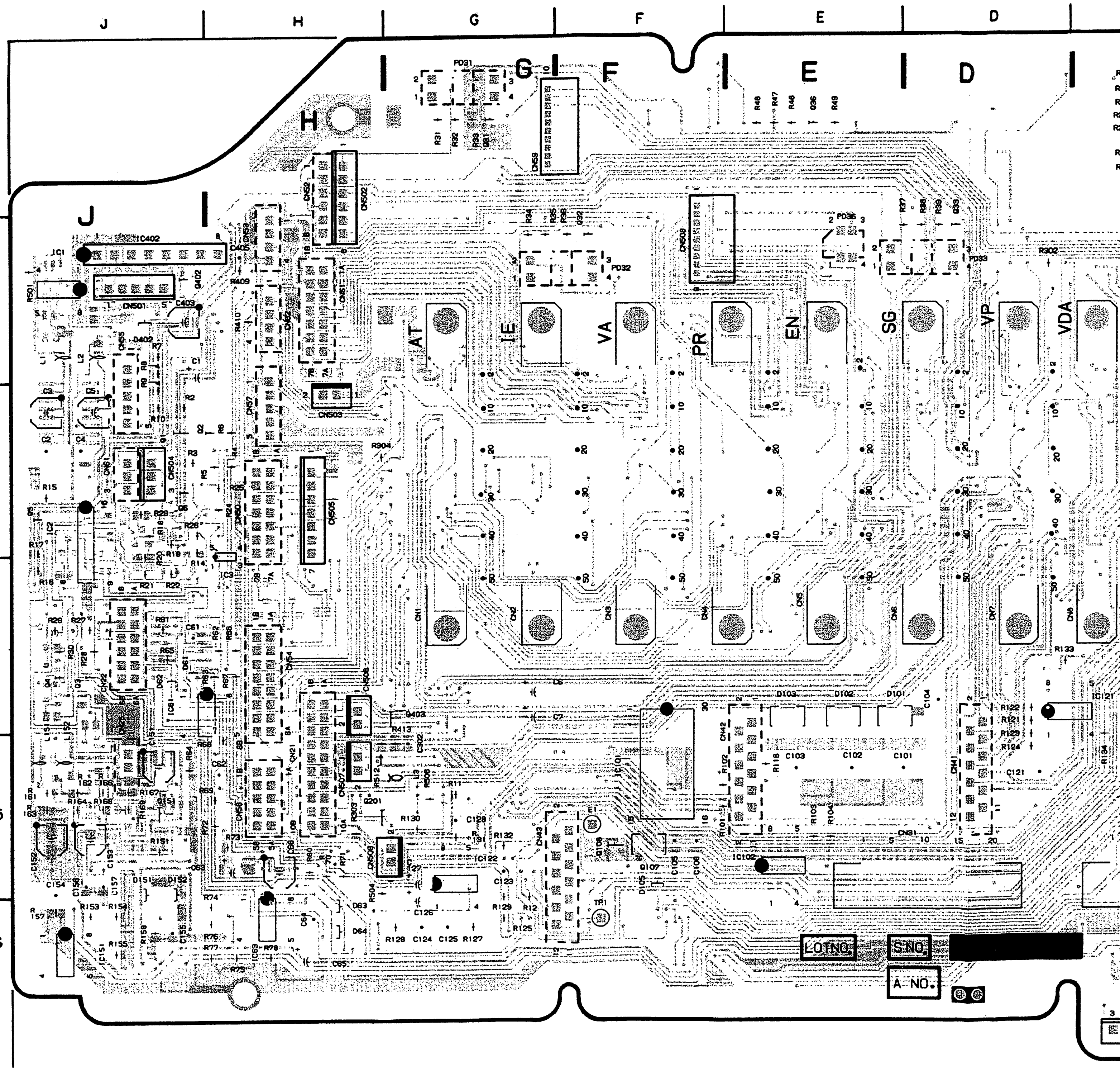

13
CN1
1
CN2
7
1
SNO-6
JAPAN
CN3
CN-400
1-634-967
-11
11
1
CN4
1
9

CN-400 -COMPONENT SIDE-
1-634-967-11
BVW-400A
BVW-400AP

CN1	G-4
CN2	G-4
CN3	F-4
CN4	F-4
CN5	E-4
CN6	E-4
CN7	D-4
CN8	C-4
CN9	C-4
CN10	C-4
CN11	B-4
CN12	A-4
CN13	A-4
CN21	H-5
CN22	J-4
CN23	C-6
CN24	B-6
CN25	J-4
CN31	D-5
CN32	C-5
CN41	D-5
CN42	E-5
CN43	F-5
CN44	B-6
CN50	H-3
CN51	H-2
CN52	H-1
CN53	H-2
CN54	H-4
CN55	J-3
CN56	B-1
CN57	H-3
CN58	H-5
CN59	G-1
CN60	A-3
CN61	J-3
CN62	H-2
CN63	C-6
CN64	A-6
CN501	J-2
CN502	H-1
CN503	H-3
CN504	J-3
CN505	H-3
CN506	H-4
CN507	H-5
CN508	F-2
CN509	H-5
D1	H-4
D2	J-3
D3	J-3
D4	J-4
D61	J-4
D62	J-4
D63	H-6
D64	H-6
D101	E-4
D102	E-4
D103	E-4
D105	F-5
D151	J-5
D152	J-5
D401	J-5
D402	J-2
D403	H-4
E1	F-5
IC1	J-2
IC2	J-3
IC3	H-4
IC4	J-4
IC61	J-4
IC62	H-4
IC63	H-6
IC101	F-5
IC102	E-5
IC121	C-4
IC122	G-5
IC151	J-6
IC201	B-1
IC202	A-1
IC401	J-5
IC402	J-2
IC403	J-4
IC404	J-3
IC405	J-2
PD31	G-1
PD32	F-2
PD33	D-2
PD34	B-1
PD35	A-2
PD36	E-1
PD37	B-2
Q1	J-3
Q2	J-3
Q3	J-4
Q4	J-4
Q5	J-3
Q6	J-3
Q31	G-1
Q32	F-2
Q33	D-2
Q34	C-1
Q35	A-2
Q36	E-1
Q37	B-1
Q107	F-5
Q108	F-5
Q151	J-5
Q201	H-5
Q202	H-4
Q301	C-1
Q401	J-5
Q402	J-2
Q403	G-4
Q404	J-4
Q405	J-4
Q501	J-3
TP1	F-6

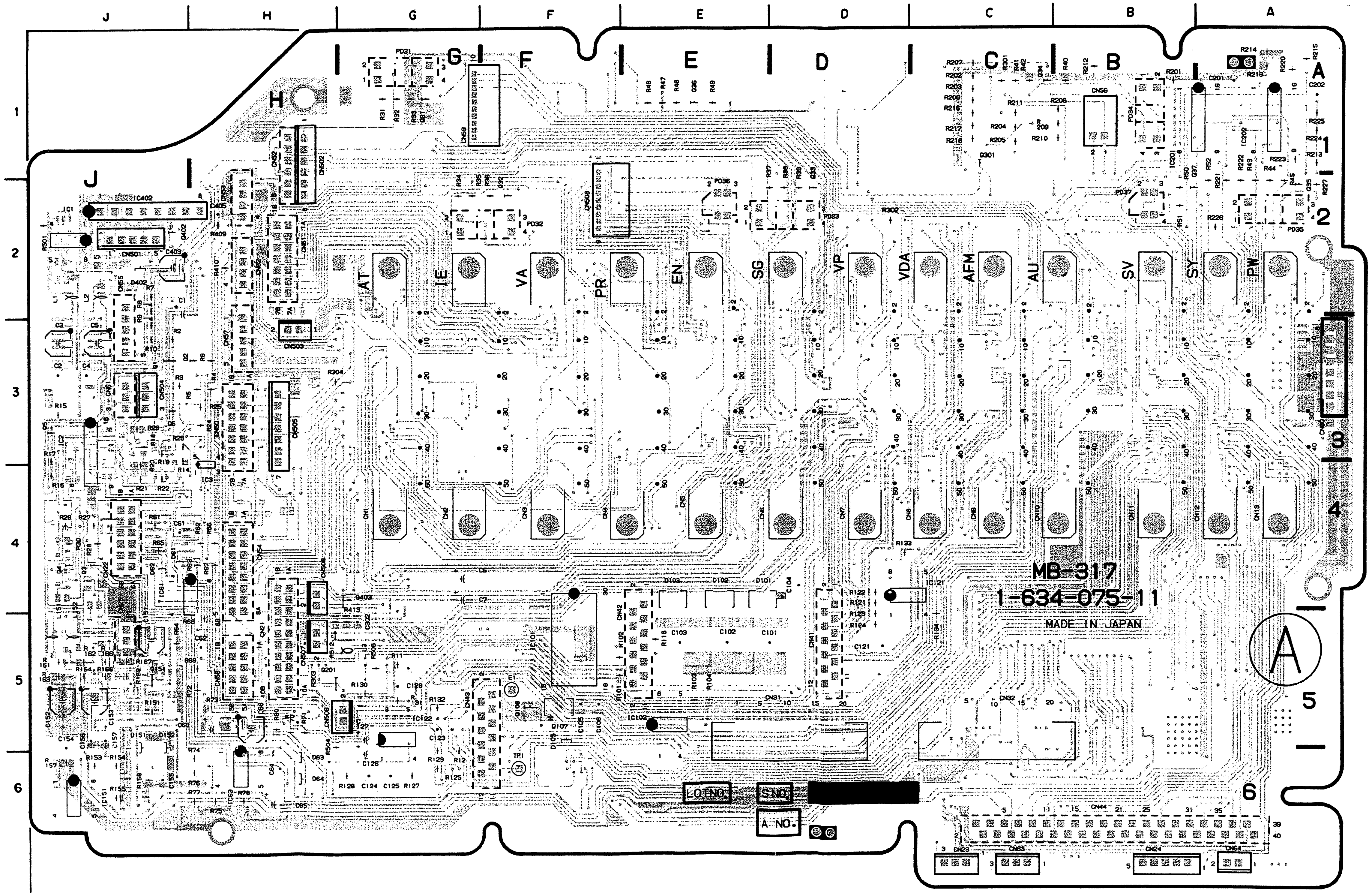
MB-317P;MOTHER BOARD
SW-291;BACK TALLY

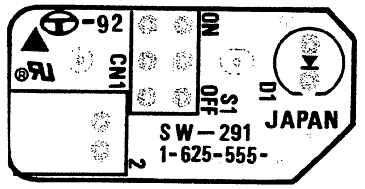
S/N;40001 through 40360



MB-317P;MOTHER BOARD
SW-291;BACK TALLY

S/N;40001 through 40360


J
H
G
F
E
D
C
B
A
1
2
3
4
5
6
AT
IE
VA
PR
EN
SG
VP
VDA
AFM
AU
SV
SY
PW
MB-317
1-634-075-11
MADE IN JAPAN
LOT NO.
S NO.
A NO.


-92
CN1
ON
OFF
S1
D1
SW-291
1-625-555-
JAPAN

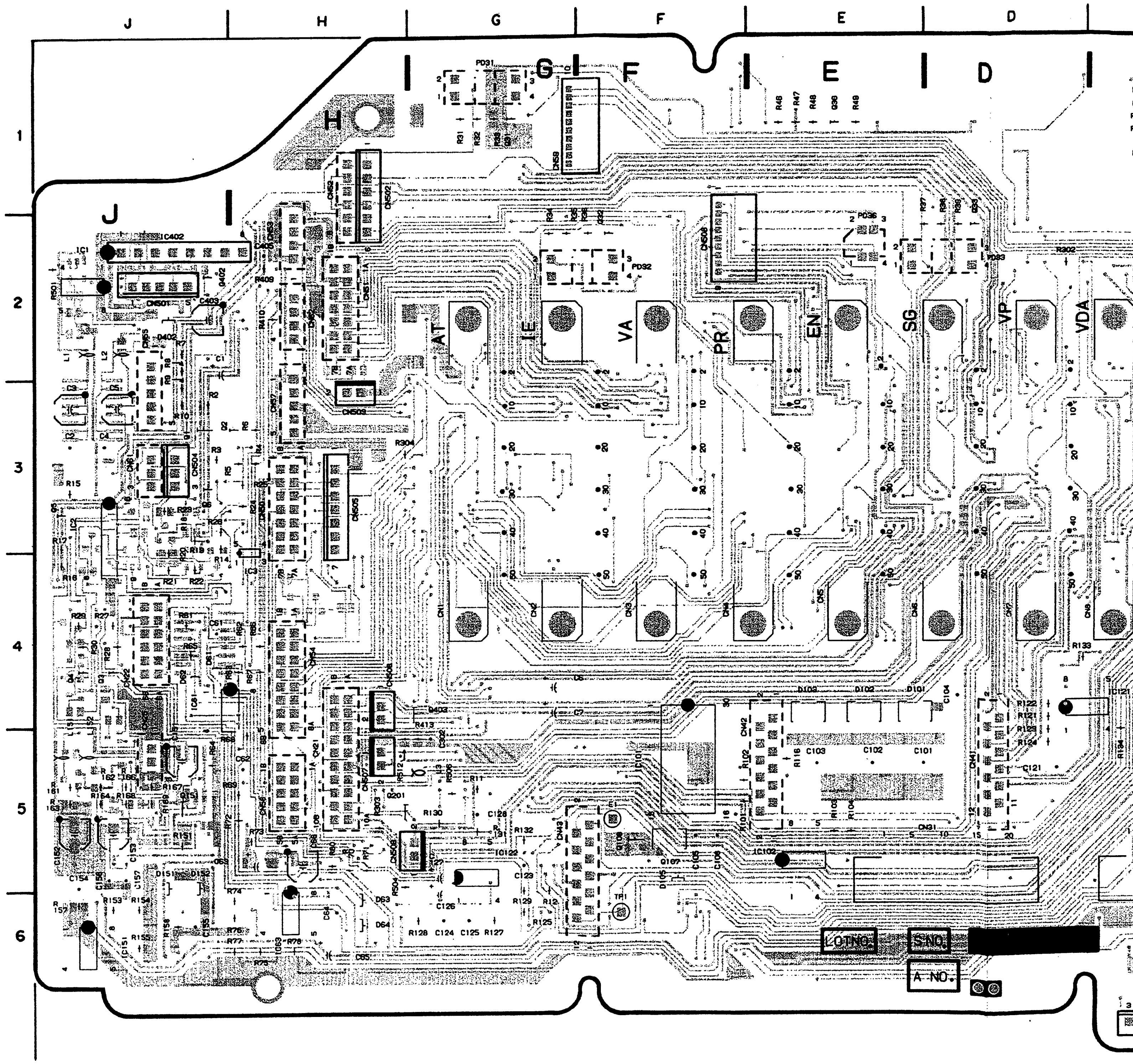
SW-291
-COMPONENT SIDE-
1-625-555-13
BVW-400A
BVW-400AP

MB-317/317P -COMPONENT SIDE-
1-634-075-11
BVW-400A
BVW-400AP

CN1	G-4	D63	H-6	Q107	F-5
CN2	G-4	D64	H-6	Q108	F-5
CN3	F-4	D101	E-4	Q151	J-5
CN4	F-4	D102	E-4	Q201	H-5
CN5	E-4	D103	E-4	Q202	H-4
CN6	E-4	D105	F-5	Q301	C-1
CN7	D-4	D151	J-5	Q401	J-5
CN8	C-4	D152	J-5	Q402	J-2
CN9	C-4	D401	J-5	Q403	G-4
CN10	C-4	D402	J-2	Q404	J-4
CN11	B-4	D403	H-4	Q405	J-4
CN12	A-4			Q501	J-3
CN13	A-4	E1	F-5		
CN21	H-5			TP1	F-6
CN22	J-4	IC1	J-2		
CN23	C-6	IC2	J-3		
CN24	B-6	IC3	H-4		
CN25	J-4	IC4	J-4		
CN31	D-5	IC61	J-4		
CN32	C-5	IC62	H-4		
CN41	D-5	IC63	H-6		
CN42	E-5	IC101	F-5		
CN43	F-5	IC102	E-5		
CN44	B-6	IC121	C-4		
CN50	H-3	IC122	G-5		
CN51	H-2	IC151	J-6		
CN52	H-1	IC201	B-1		
CN53	H-2	IC202	A-1		
CN54	H-4	IC401	J-5		
CN55	J-3	IC402	J-2		
CN56	B-1	IC403	J-4		
CN57	H-3	IC404	J-3		
CN58	H-5	IC405	J-2		
CN59	G-1				
CN60	A-3	PD31	G-1		
CN61	J-3	PD32	F-2		
CN62	H-2	PD33	D-2		
CN63	C-6	PD34	B-1		
CN64	A-6	PD35	A-2		
CN501	J-2	PD36	E-1		
CN502	H-1	PD37	B-2		
CN503	H-3				
CN504	J-3	Q1	J-3		
CN505	H-3	Q2	J-3		
CN506	H-4	Q3	J-4		
CN507	H-5	Q4	J-4		
CN508	F-2	Q5	J-3		
CN509	H-5	Q6	J-3		
		Q31	G-1		
D1	H-4	Q32	F-2		
D2	J-3	Q33	D-2		
D3	J-3	Q34	C-1		
D4	J-4	Q35	A-2		
D61	J-4	Q36	E-1		
D62	J-4	Q37	B-1		

MB-317P;MOTHER BOARD
SW-291;BACK TALLY

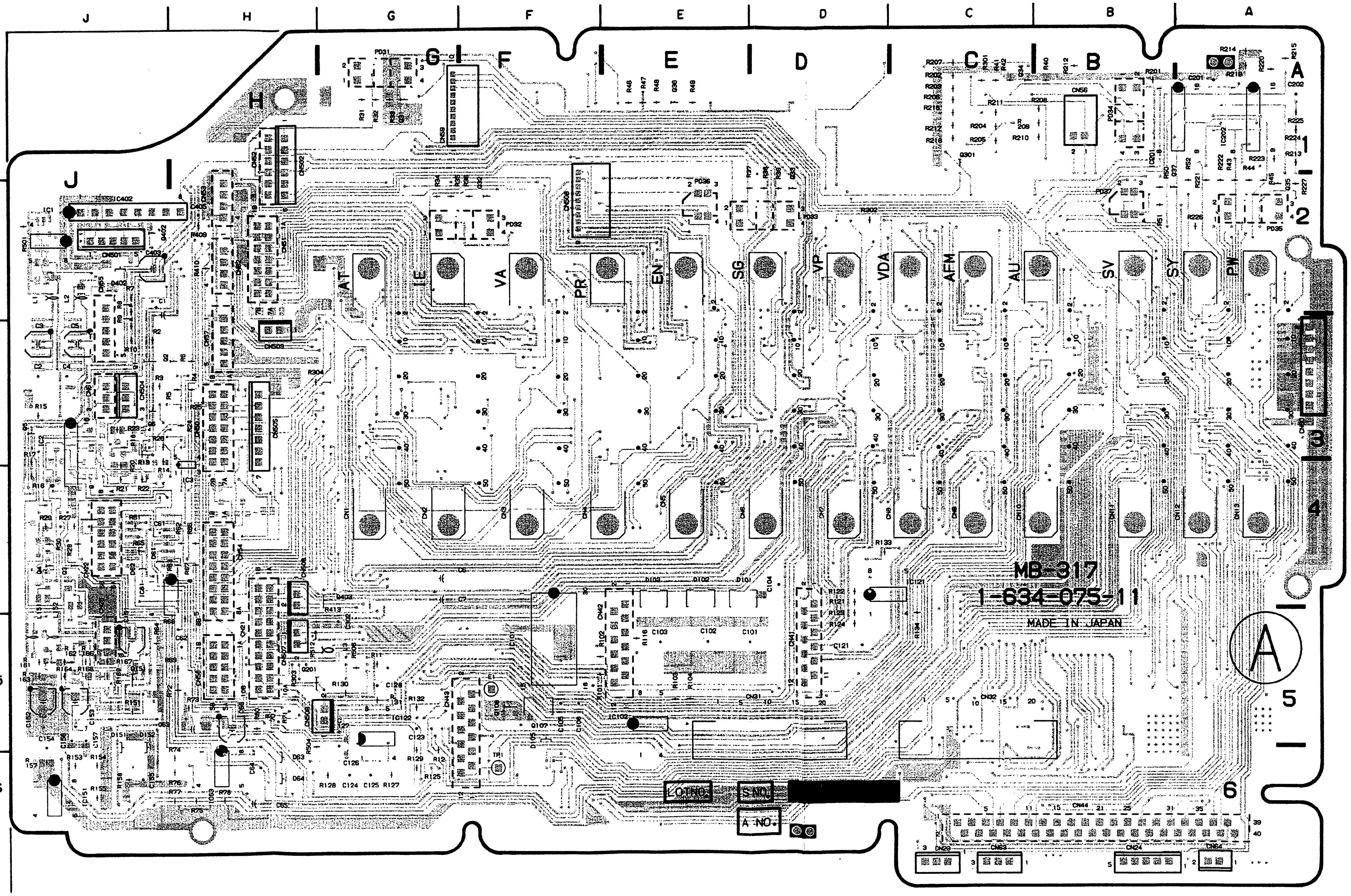
S/N;40361 and higher

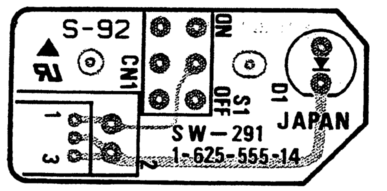


MB-317P;MOTHER BOARD
SW-291;BACK TALLY

S/N;40361 and higher

5
5
5
5
5
4
1
5
2
4
4
4
3
6


J
H
G
F
E
D
C
B
A
1
2
3
4
5
6
AT
LE
VA
PR
EN
SG
VP
VDA
AFM
AU
SV
SY
PW
MB-317
1-634-075-11
MADE IN JAPAN
A
LOT NO.
S NO.
A NO.

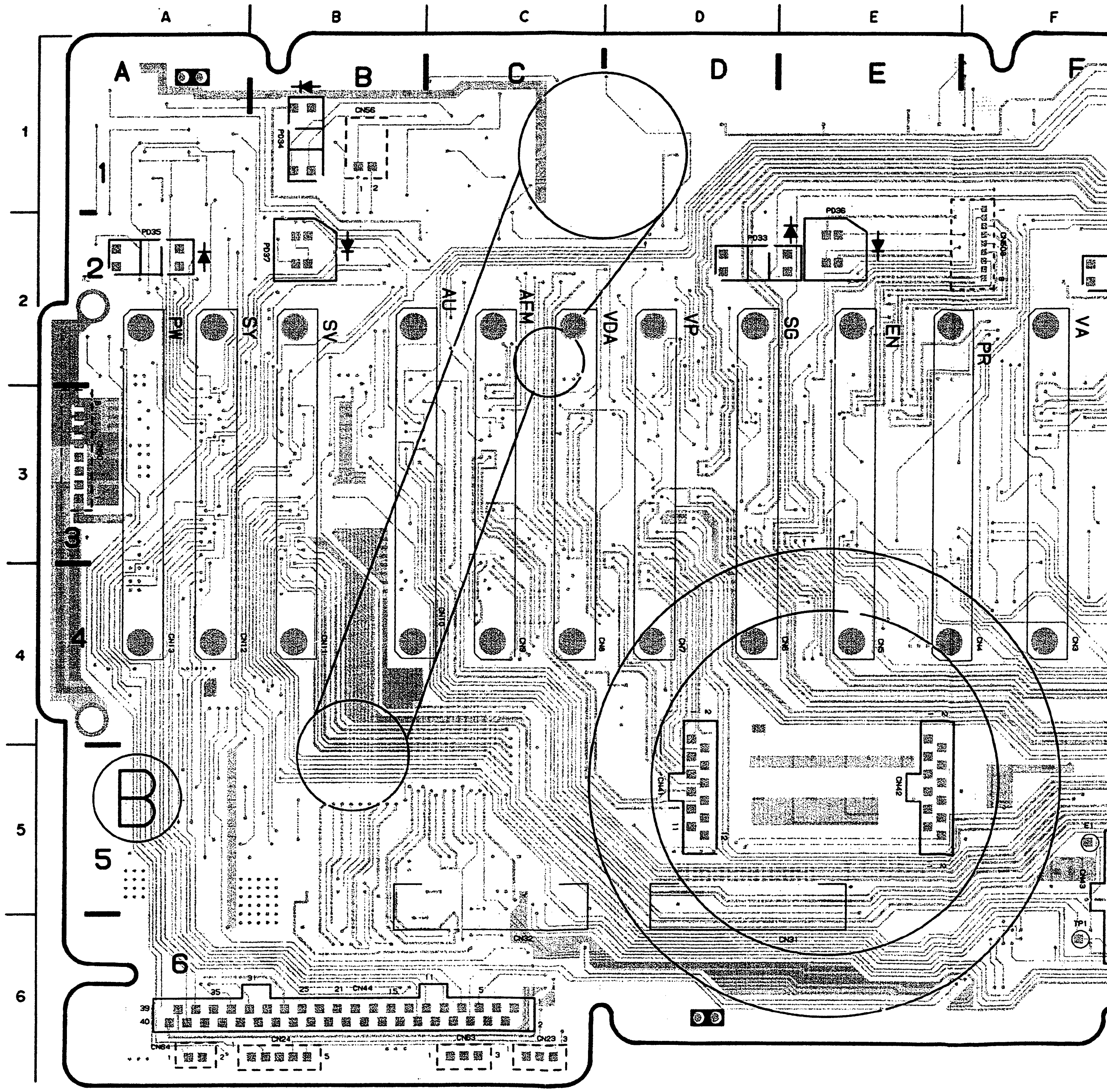

S-92
CN1
S1
ON
OFF
D1
SW-291
JAPAN
1-625-555-14

SW-291
-COMPONENT SIDE-
1-625-555-14
BVW-400A
BVW-400AP

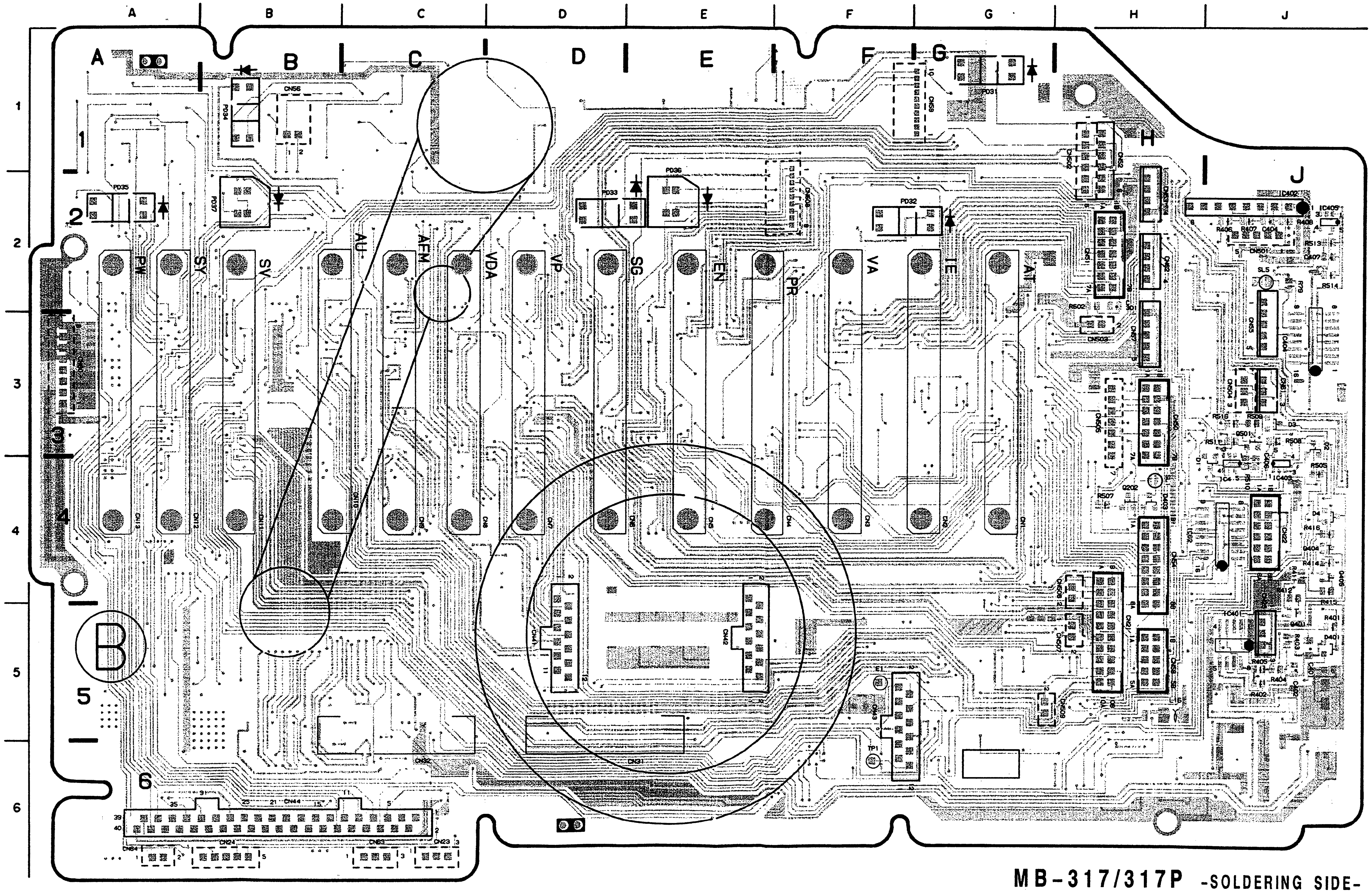
MB-317/317P -COMPONENT SIDE-
1-634-075-11
BVW-400A
BVW-400AP

MB-317P;MOTHER BOARD

CN1	G-4	D63	H-6	Q107	F-5
CN2	G-4	D64	H-6	Q108	F-5
CN3	F-4	D101	E-4	Q151	J-5
CN4	F-4	D102	E-4	Q201	H-5
CN5	E-4	D103	E-4	Q202	H-4
CN6	E-4	D105	F-5	Q301	C-1
CN7	D-4	D151	J-5	Q401	J-5
CN8	C-4	D152	J-5	Q402	J-2
CN9	C-4	D401	J-5	Q403	G-4
CN10	C-4	D402	J-2	Q404	J-4
CN11	B-4	D403	H-4	Q405	J-4
CN12	A-4			Q501	J-3
CN13	A-4	E1	F-5		
CN21	H-5			TP1	F-6
CN22	J-4	IC1	J-2		
CN23	C-6	IC2	J-3		
CN24	B-6	IC3	H-4		
CN25	J-4	IC4	J-4		
CN31	D-5	IC61	J-4		
CN32	C-5	IC62	H-4		
CN41	D-5	IC63	H-6		
CN42	E-5	IC101	F-5		
CN43	F-5	IC102	E-5		
CN44	B-6	IC121	C-4		
CN50	H-3	IC122	G-5		
CN51	H-2	IC151	J-6		
CN52	H-1	IC201	B-1		
CN53	H-2	IC202	A-1		
CN54	H-4	IC401	J-5		
CN55	J-3	IC402	J-2		
CN56	B-1	IC403	J-4		
CN57	H-3	IC404	J-3		
CN58	H-5	IC405	J-2		
CN59	G-1				
CN60	A-3	PD31	G-1		
CN61	J-3	PD32	F-2		
CN62	H-2	PD33	D-2		
CN63	C-6	PD34	B-1		
CN64	A-6	PD35	A-2		
CN501	J-2	PD36	E-1		
CN502	H-1	PD37	B-2		
CN503	H-3				
CN504	J-3	Q1	J-3		
CN505	H-3	Q2	J-3		
CN506	H-4	Q3	J-4		
CN507	H-5	Q4	J-4		
CN508	F-2	Q5	J-3		
CN509	H-5	Q6	J-3		
		Q31	G-1		
D1	H-4	Q32	F-2		
D2	J-3	Q33	D-2		
D3	J-3	Q34	C-1		
D4	J-4	Q35	A-2		
D61	J-4	Q36	E-1		
D62	J-4	Q37	B-1		


A
B
C
D
E
F
1
2
3
4
5
6
PD35
PD34
CN56
PD37
PD33
PD36
PW
SY
SV
AU
AFM
VDA
VP
SG
TEN
PR
VA
CN41
CN42
CN31
CN32
CN44
CN24
CN63
CN23
CN64
TP1
E1
35
25
21
15
5
39
40
2
3

MB-317P;MOTHER BOARD


A
B
C
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E
F
G
H
J
1
2
3
4
5
6
PW
SY
SV
AU
AFM
VDA
VP
SG
EN
PR
VA
IE
AT
PD31
PD32
PD33
PD34
PD35
PD36
PD37
CN56
CN44
CN42
CN41
CN31
CN32
CN24
CN23
CN62
CN64
IC402
IC403
IC405
Q501
TP1
SL5
R402
R404
R406
R407
R408
R505
R506
R507
R508
R513
R514
R516

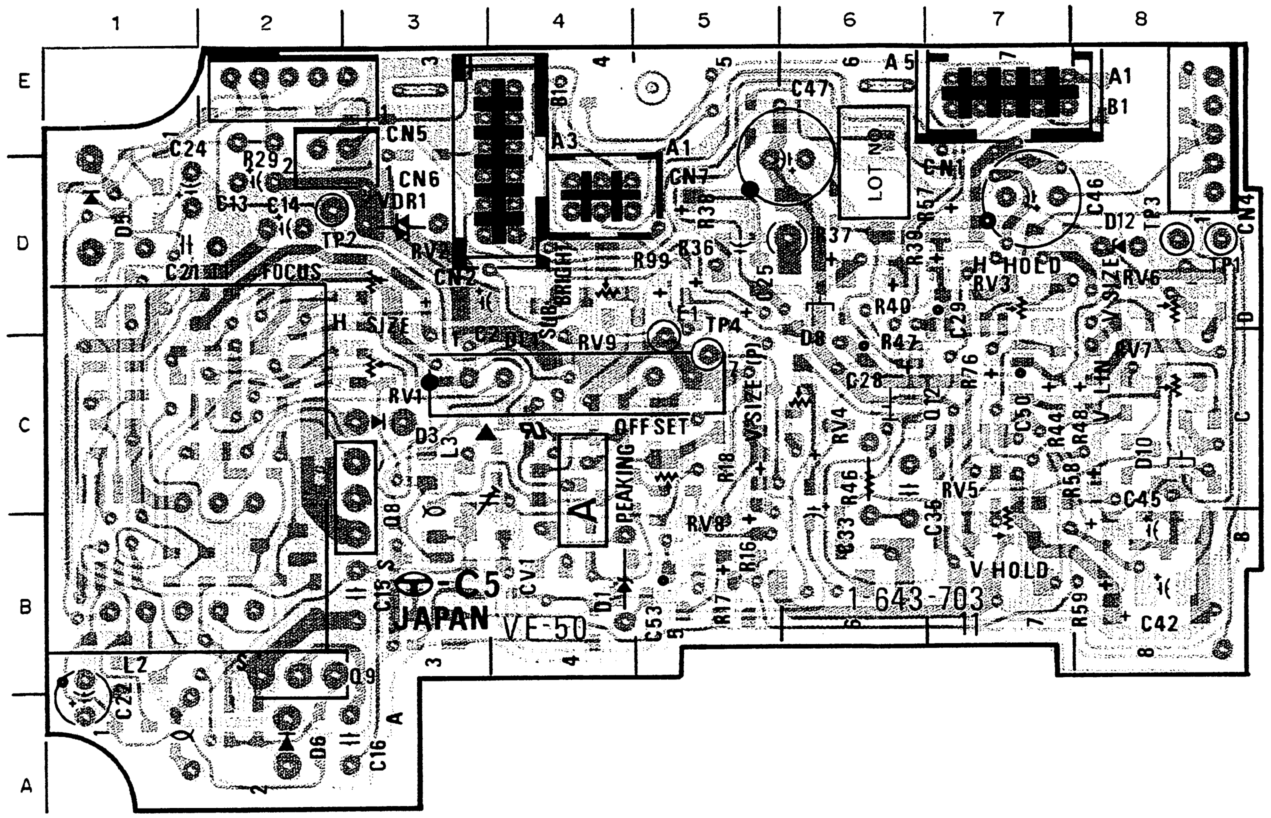
MB-317/317P -SOLDERING SIDE-

1-634-075-11
BVW-400A
BVW-400AP

VF-50;VIEWFINDER

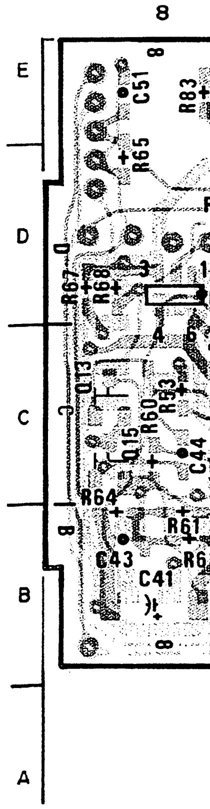
S/N;40001 through 40360

CN1	D-7
CN2	D-3
CN4	D-8
CN5	D-3
CN6	D-3
CN7	D-5
CV1	B-4
DL1	C-4
D1	B-4
D2	B-5
D3	C-3
D5	D-1
D6	A-3
D7	B-5
D8	C-6
D9	C-6
D10	C-8
D11	B-2
D12	D-8
D13	A-1
E1	D-5
IC1	C-6
IC2	C-1
IC3	C-2
IC4	D-8
L2	B-1
L3	C-3
Q1	D-2
Q2	C-4
Q3	B-4
Q4	B-9
Q5	C-6
Q7	C-4
Q8	B-3
Q9	B-3
Q10	C-3
Q11	D-6
Q12	C-6
Q13	C-8
Q14	B-7
Q15	C-8
Q16	D-1
Q17	B-5
Q18	C-4


1
2
3
4
5
6
7
8
E
D
C
B
A
CN5
CN6
CN7
CN1
CN4
CN2
C24
R29
C14
TP2
FOCUS
H SIZE
RV1
D3
L3
OFFSET
PEAKING
RV9
RV8
TP4
C47
A5
A1
B1
A3
LOT No.
H HOLD
RV3
RV6
RV7
RV4
RV5
V SIZE
V HOLD
C45
C42
D12
TP3
TP1
C5
JAPAN
VF-50
1-643-703
Q9
D6
C16
C22
L2
CV1
C53
R99
R36
R39
R40
R47
C28
C29
R76
R44
R48
R46
C36
D10
D8
R59

VF-50 -COMPONENT SIDE-

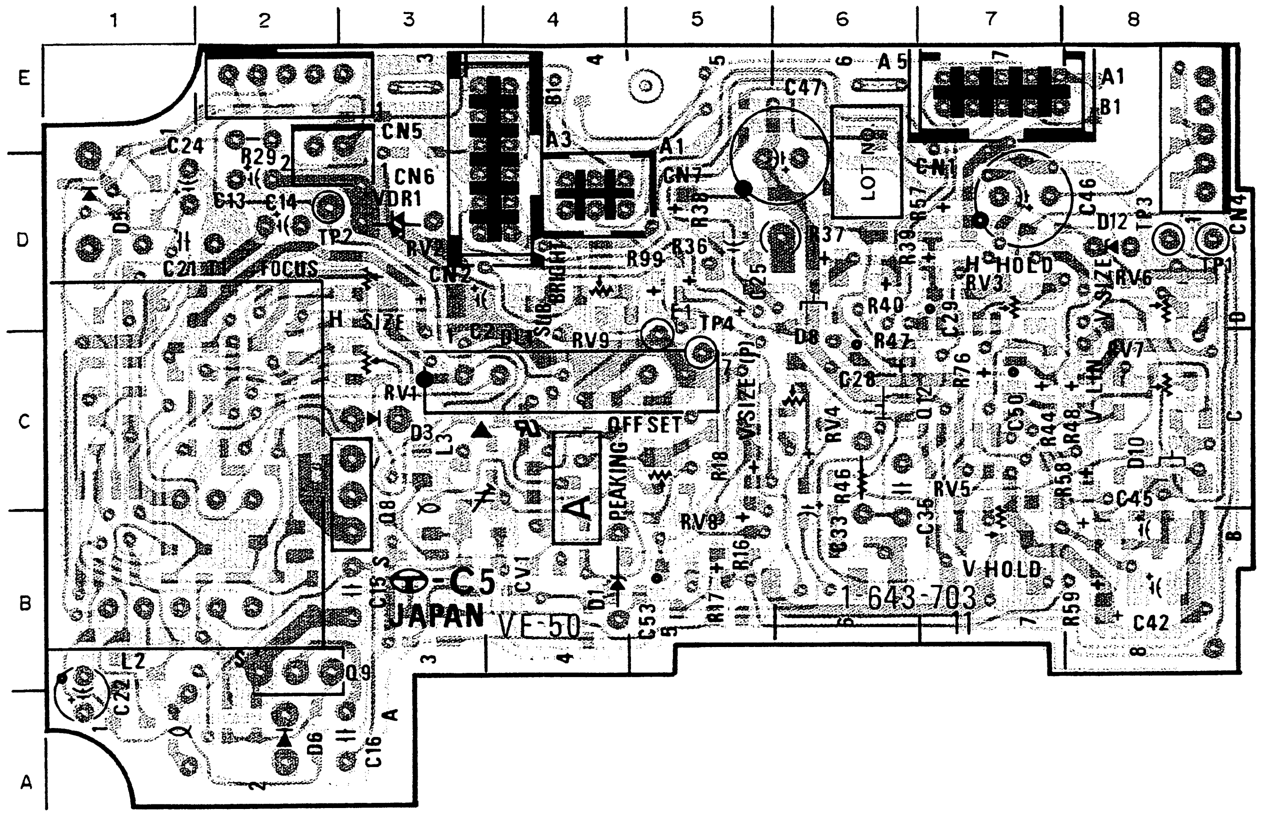
1-643-703-11
BVW-400A
BVW-400AP


8
E
D
C
B
A
C51
R83
R65
R67
R68
Q13
R60
R63
Q15
C44
R64
R61
C43
C41

VF-50;VIEWFINDER

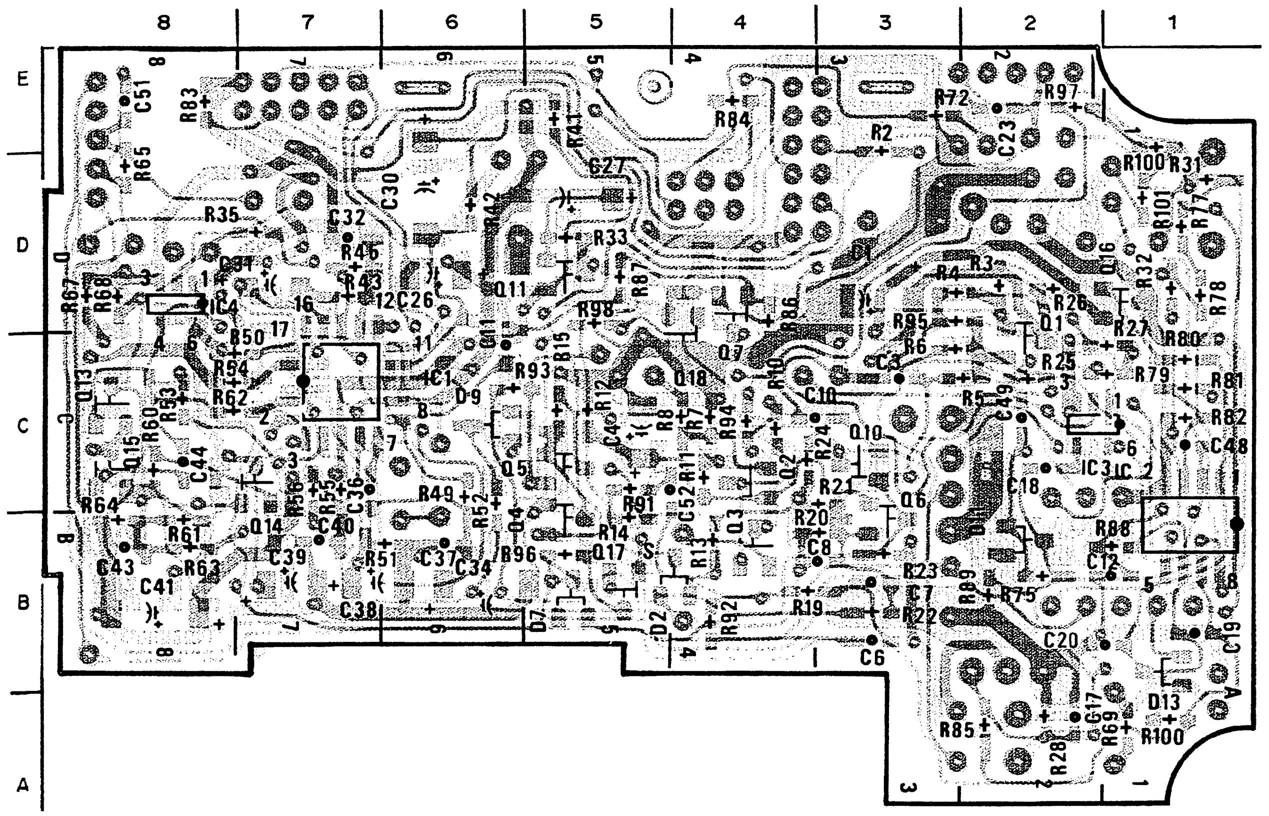
S/N;40001 through 40360

Q11	D-6
Q12	C-6
Q13	C-8
Q14	B-7
Q15	C-8
Q16	D-1
Q17	B-5
Q18	C-4



VF-50 -COMPONENT SIDE-

1-643-703-11
BVW-400A
BVW-400AP

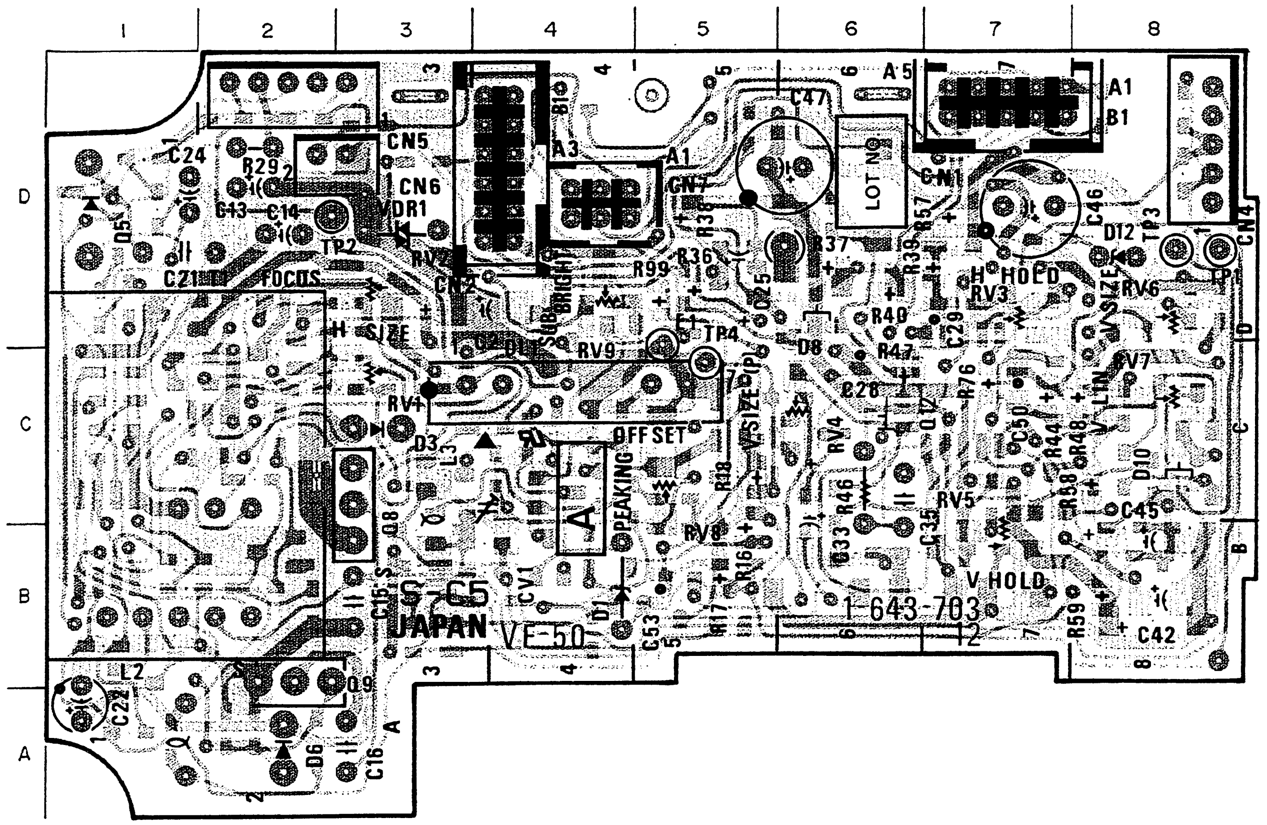


VF-50 -SOLDERING SIDE-

1-643-703-11
BVW-400A
BVW-400AP

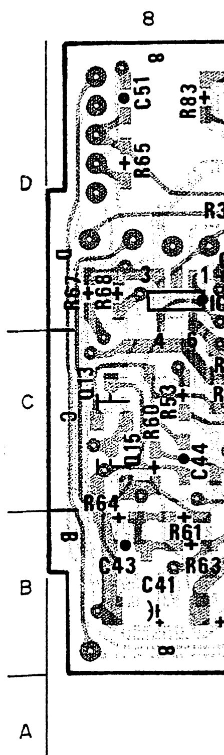
VF-50;VIEWFINDER **S/N;40361 and higher**

CN1	D-7
CN2	D-3
CN4	D-8
CN5	D-3
CN6	D-3
CN7	D-5
CV1	B-4
DL1	C-4
D1	B-4
D2	B-5
D3	C-3
D5	D-1
D6	A-3
D7	B-5
D8	C-6
D9	C-6
D10	C-8
D11	B-2
D12	D-8
D13	A-1
E1	D-5
IC1	C-6
IC2	C-1
IC3	C-2
IC4	D-8
L2	B-1
L3	C-3
Q1	D-2
Q2	C-4
Q3	B-4
Q4	B-9
Q5	C-6
Q7	C-4
Q8	B-3
Q9	B-3
Q10	C-3
Q11	D-6
Q12	C-6
Q13	C-8
Q14	B-7
Q15	C-8
Q16	D-1
Q17	B-5
Q18	C-4


1
2
3
4
5
6
7
8
D
C
B
A
CN5
CN6
CN7
CN1
CN4
C24
R29
C14
VDR1
TP2
RV2
C21
FOCUS
H SIZE
RV1
D3
DL1
RV9
TP4
OFFSET
PEAKING
V SIZE
RV8
RV4
R99
R36
R37
R39
R40
R47
H HOLD
RV3
RV6
RV7
D12
TP3
TP1
C46
C47
LOT NO.
A1
B1
A3
A5
R38
D8
R26
R76
C50
R44
R48
D10
C45
RV5
V HOLD
R59
C42
R46
C35
C33
R16
R18
C53
D1
CV1
S-C5
JAPAN
VF-50
1-643-703-12
L2
C22
Q9
D6
C16
D5

VF-50 -COMPONENT SIDE-

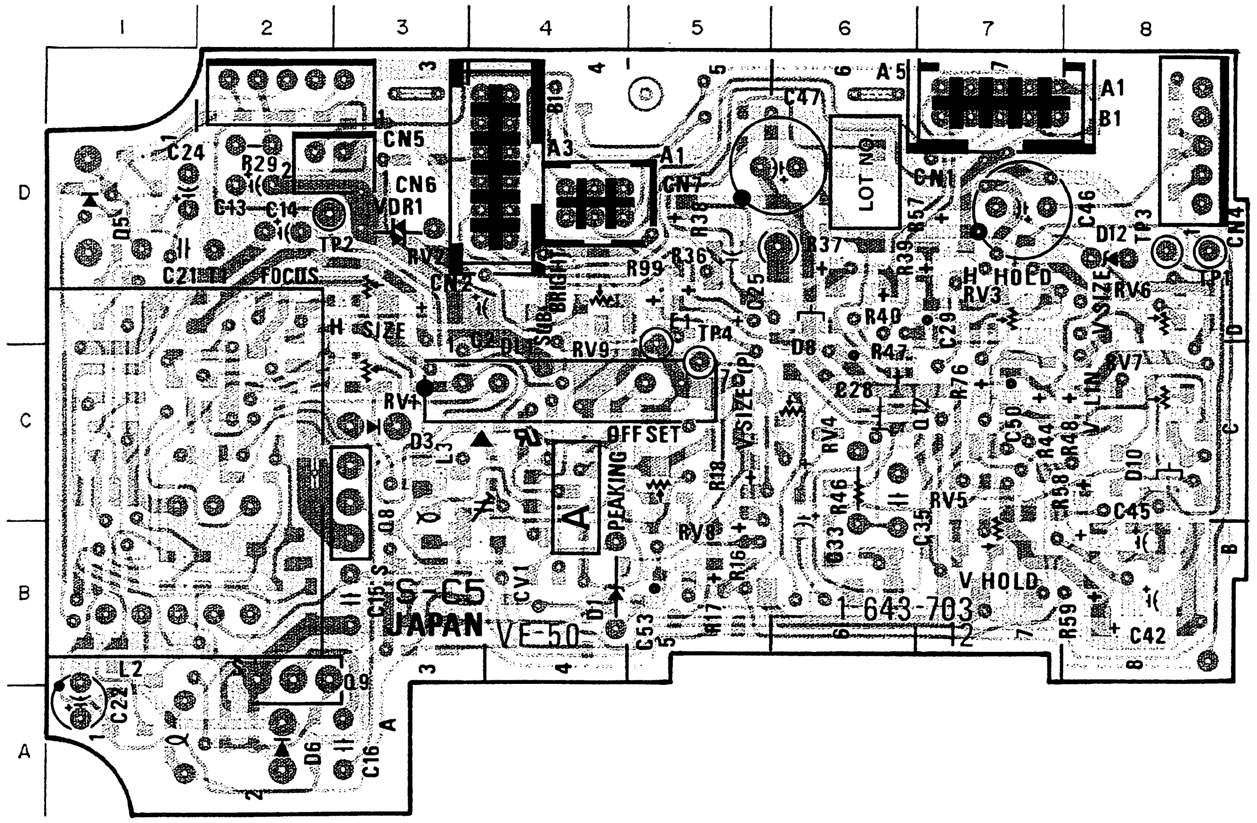
1-643-703-12
BVW-400A
BVW-400AP


8
D
C
B
A
C51
R83
R65
R67
R68
Q13
R60
R53
C44
Q15
R64
C43
R61
R63
C41

VF-50;VIEWFINDER

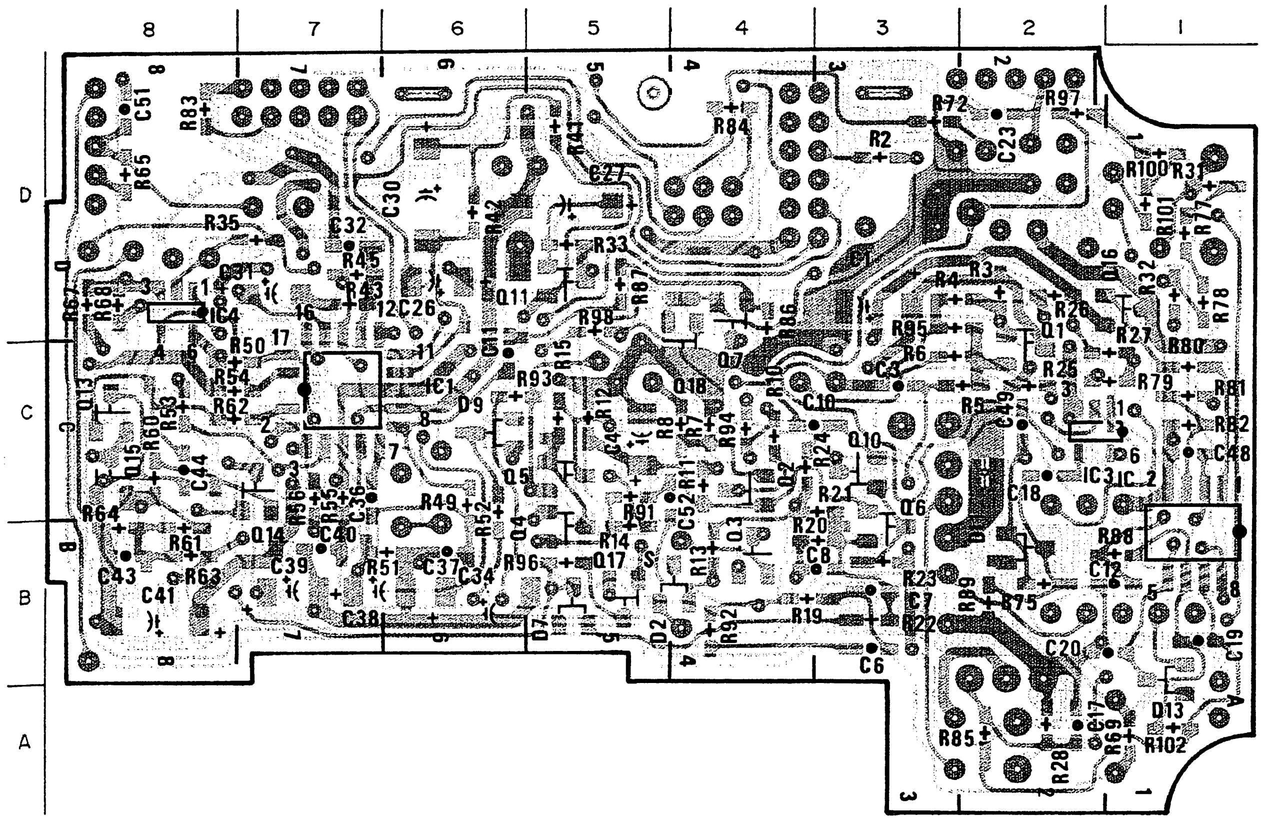
S/N;40361 and higher

Q11	D-6
Q12	C-6
Q13	C-8
Q14	B-7
Q15	C-8
Q16	D-1
Q17	B-5
Q18	C-4


1
2
3
4
5
6
7
8
D
C
B
A
FOCUS
H SIZE
BRIGHT
PEAKING
OFF SET
V SIZE
H HOLD
V HOLD
V SIZE
V LIN
LOT NO
JAPAN
VE-50
1-643-703
12
CN1
CN4
CN5
CN6
CN7
TP1
TP2
TP3
TP4
A1
B1
A3
A5

VF-50 -COMPONENT SIDE-

1-643-703-12
BVW-400A
BVW-400AP

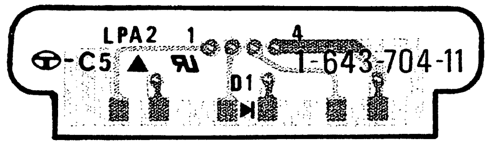

8
7
6
5
4
3
2
1
D
C
B
A
IC1
IC2
IC3
IC4

VF-50 -SOLDERING SIDE-

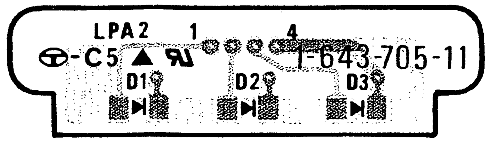
1-643-703-12
BVW-400A
BVW-400AP

LP-64;REC LED
LP-65;FRONT TALLY LED
LP-66;BATT/TALLY,VTR SAVE LED
SW-526;SWITCH BOARD
VR-149;VOLUME CONTROL
CN-771;CONNECTOR

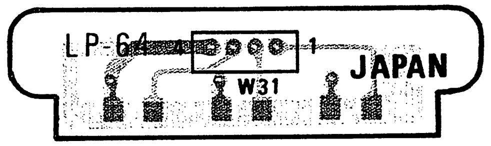
S/N;40001 through 40360


LPA2
1
4
C5
1-643-704-11
D1

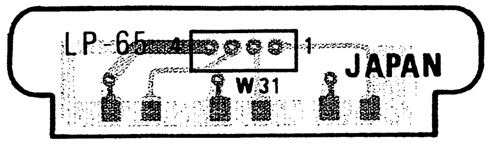
LP-64 -COMPONENT SIDE-
1-643-704-11
BVW-400A
BVW-400AP


LPA2
1
4
C5
1-643-705-11
D1
D2
D3

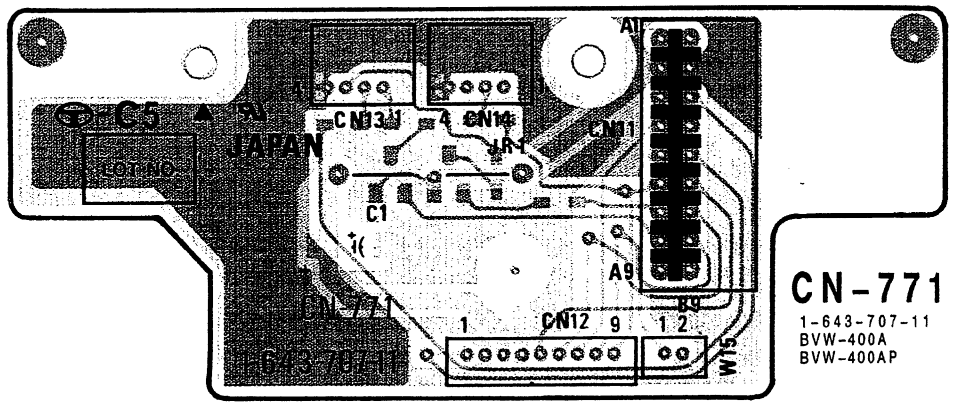
LP-65 -COMPONENT SIDE-
1-643-705-11
BVW-400A
BVW-400AP


LP-64
4
1
W31
JAPAN

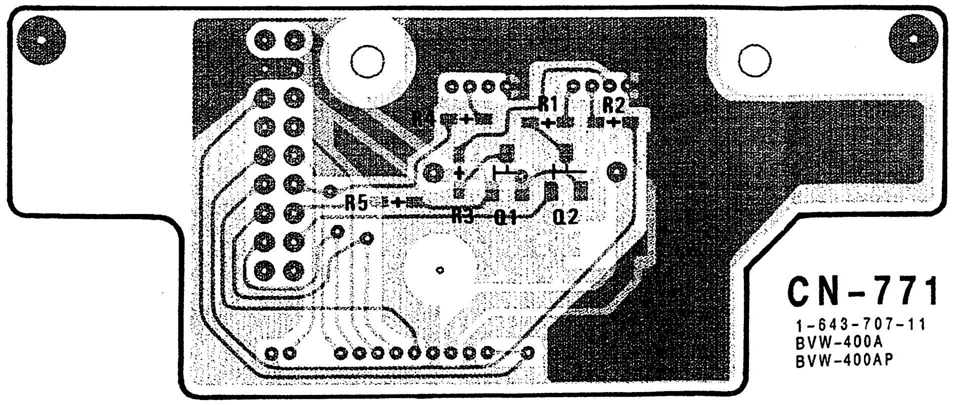
LP-64 -SOLDERING SIDE-
1-643-704-11
BVW-400A
BVW-400AP


LP-65
4
1
W31
JAPAN

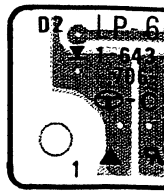
LP-65 -SOLDERING SIDE-
1-643-705-11
BVW-400A
BVW-400AP


A1
C5
CN13
CN14
CN11
JAPAN
LOT NO.
C1
A9
B9
CN-771
1-643-707-11
CN12
1
9
1 2
W15

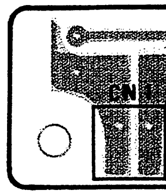
CN-771 -COMPONENT SIDE-
1-643-707-11
BVW-400A
BVW-400AP


R1
R2
R4
R5
R3
Q1
Q2

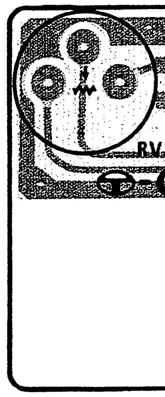
CN-771 -SOLDERING SIDE-
1-643-707-11
BVW-400A
BVW-400AP

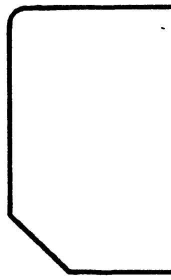


LP-66
1-643-706-11
BVW-400A
BVW-400AP



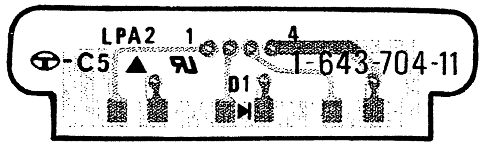
LP-66
1-643-706-11
BVW-400A
BVW-400AP



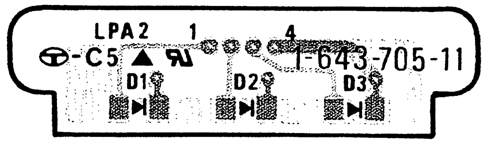


LP-64;REC LED
LP-65;FRONT TALLY LED
LP-66;BATT/TALLY,VTR SAVE LED
SW-526;SWITCH BOARD
VR-149;VOLUME CONTROL
CN-771;CONNECTOR

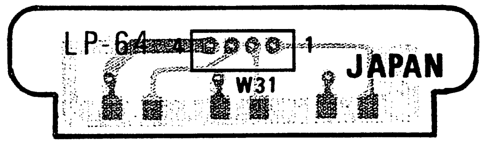
S/N;40001 through 40360


LPA2
1
4
C5
1-643-704-11
D1

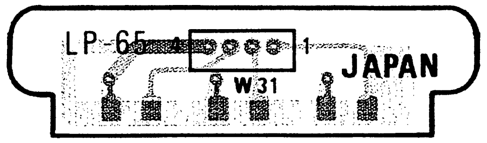
LP-64 -COMPONENT SIDE-
1-643-704-11
BVW-400A
BVW-400AP


LPA2
1
4
C5
1-643-705-11
D1
D2
D3

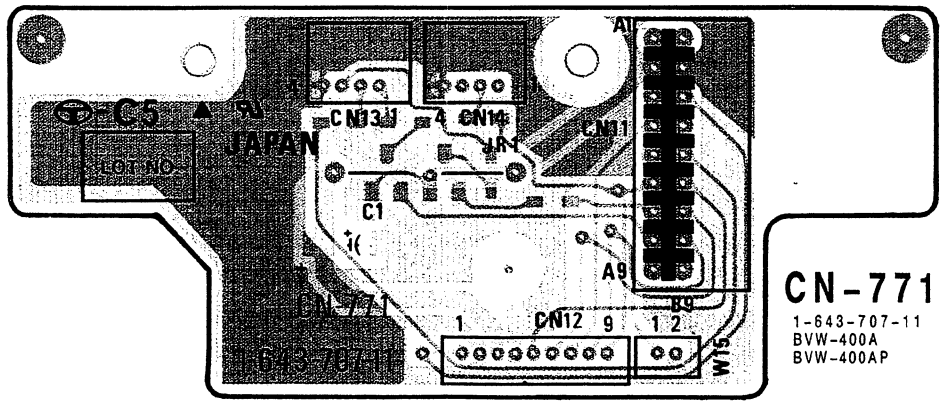
LP-65 -COMPONENT SIDE-
1-643-705-11
BVW-400A
BVW-400AP


LP-64
4
1
W31
JAPAN

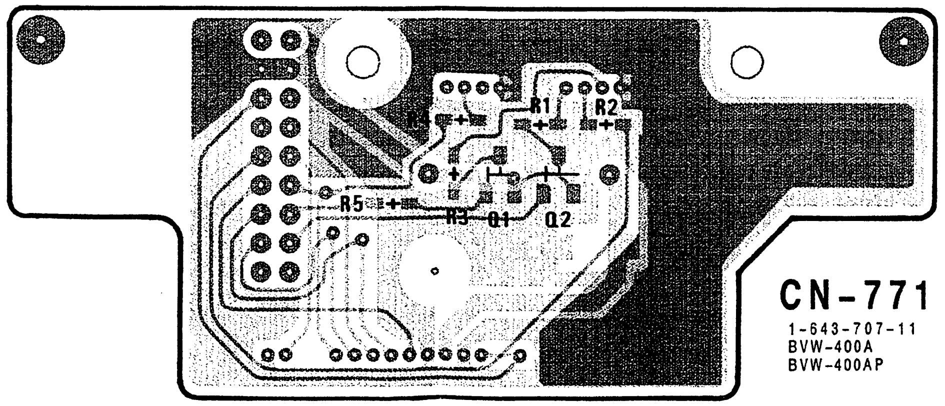
LP-64 -SOLDERING SIDE-
1-643-704-11
BVW-400A
BVW-400AP


LP-65
4
1
W31
JAPAN

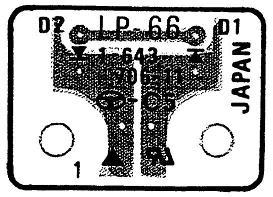
LP-65 -SOLDERING SIDE-
1-643-705-11
BVW-400A
BVW-400AP


A1
C5
JAPAN
LOT NO.
CN13
CN14
CN11
JR1
C1
A9
B9
CN-771
1-643-707-11
1
CN12
9
1 2
W15

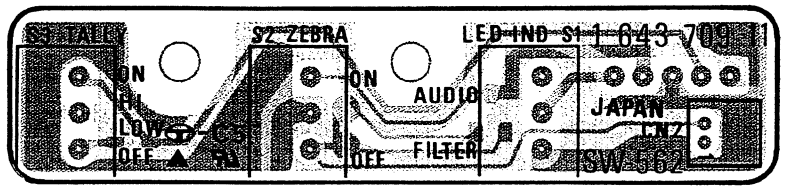
CN-771 -COMPONENT SIDE-
1-643-707-11
BVW-400A
BVW-400AP


R1
R2
R5
R3
Q1
Q2

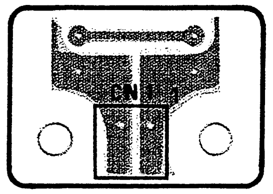
CN-771 -SOLDERING SIDE-
1-643-707-11
BVW-400A
BVW-400AP


D2
LP-66
D1
1-643-706-11
C5
JAPAN
1

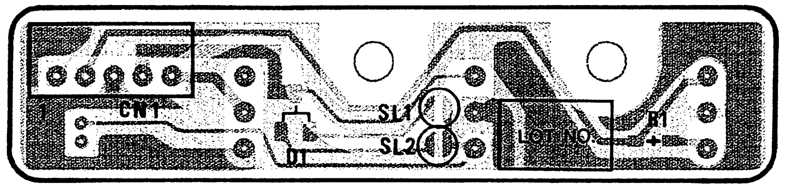
LP-66 -COMPONENT SIDE-
1-643-706-11
BVW-400A
BVW-400AP


S3 TALLY
ON
LOW
OFF
S2 ZEBRA
ON
OFF
AUDIO
FILTER
LED IND S1 1-643-709-11
JAPAN
CN2
SW-562

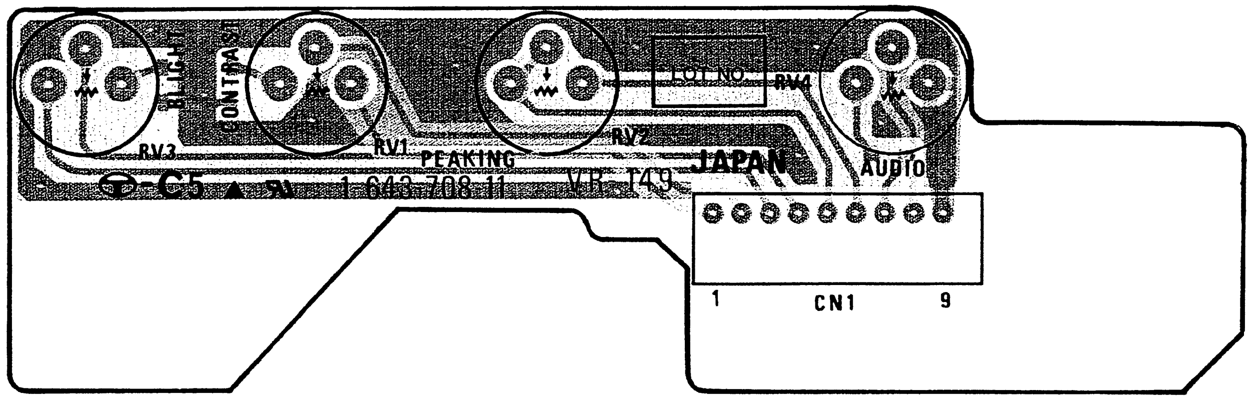
SW-562 -COMPONENT SIDE-
1-643-709-11
BVW-400A
BVW-400AP



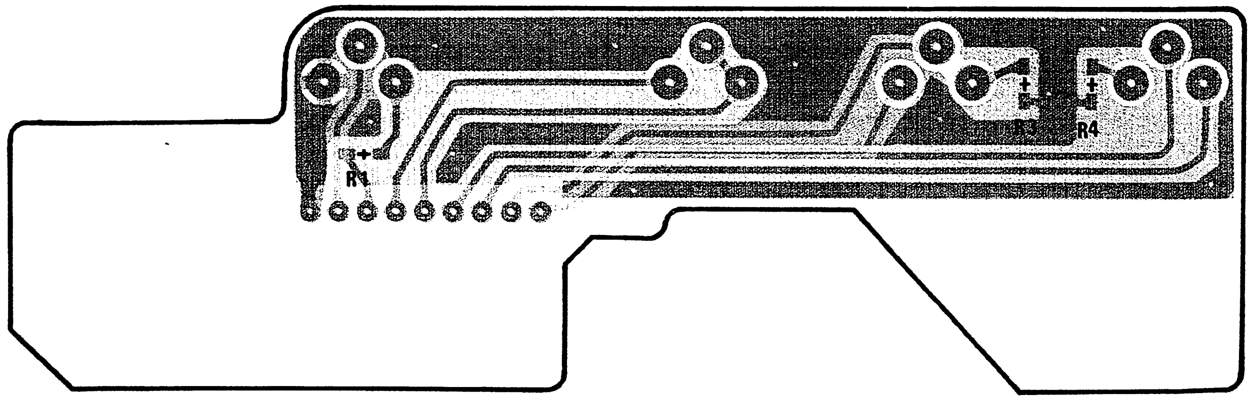
LP-66 -SOLDERING SIDE-
1-643-706-11
BVW-400A
BVW-400AP


1
CN1
D1
SL1
SL2
LOT NO.
R1

SW-562 -SOLDERING SIDE-
1-643-709-11
BVW-400A
BVW-400AP


B.LIGHT
CONTRAST
RV3
RV1
PEAKING
RV2
LOT NO.
RV4
JAPAN
AUDIO
C5
1-643-708-11
VR-149
1
CN1
9

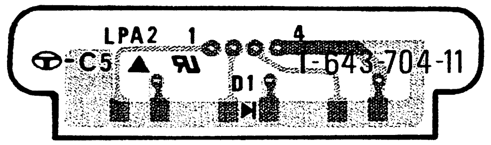
VR-149 -COMPONENT SIDE-
1-643-708-11
BVW-400A
BVW-400AP



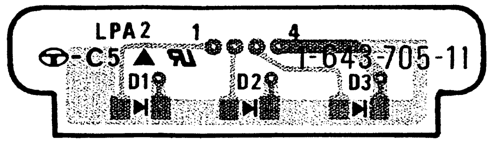
VR-149 -SOLDERING SIDE-
1-643-708-11
BVW-400A
BVW-400AP

LP-64;REC LED
LP-65;FRONT TALLY LED
LP-66;BATT/TALLY,VTR SAVE LED
SW-526;SWITCH BOARD
VR-149;VOLUME CONTROL
CN-771;CONNECTOR

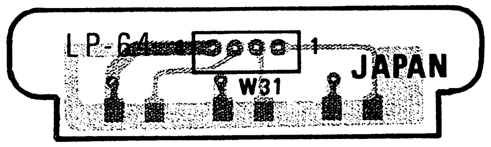
S/N;40361 and higher


LPA2
1
4
C5
1-643-704-11
D1

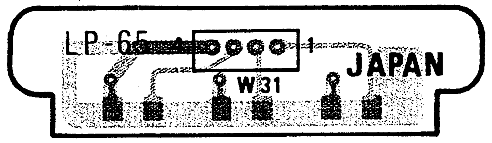
LP-64 -COMPONENT SIDE-
1-643-704-11
BVW-400A
BVW-400AP


LPA2
1
4
C5
1-643-705-11
D1
D2
D3

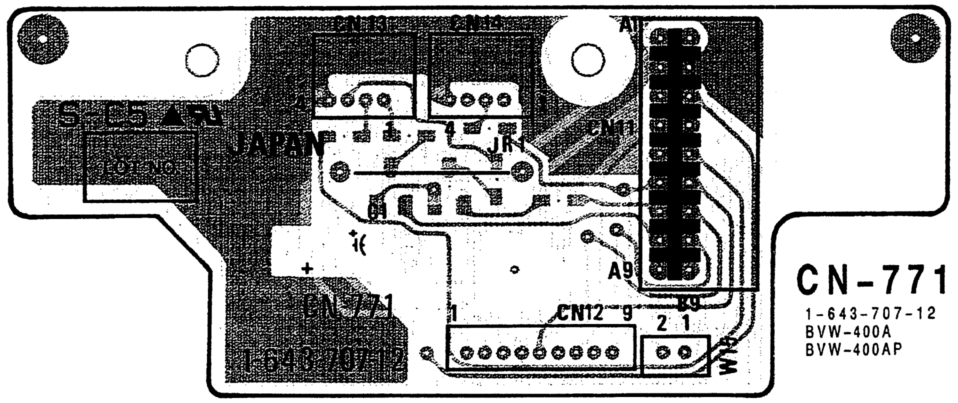
LP-65 -COMPONENT SIDE-
1-643-705-11
BVW-400A
BVW-400AP


LP-64
1
W31
JAPAN

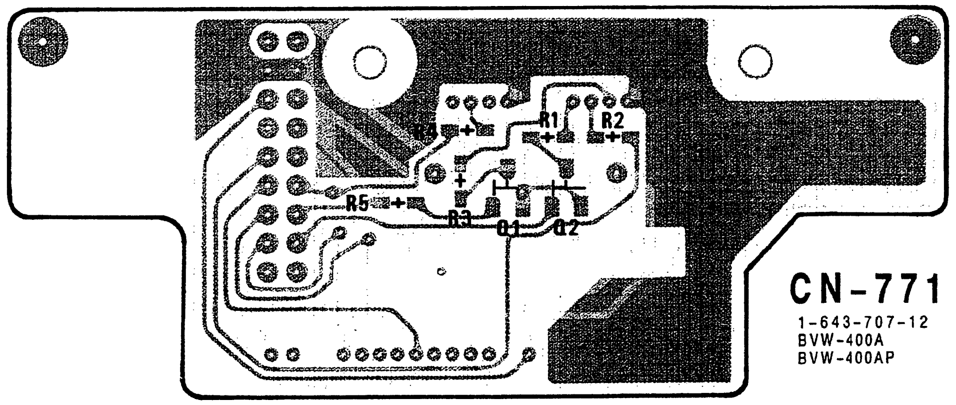
LP-64 -SOLDERING SIDE-
1-643-704-11
BVW-400A
BVW-400AP


LP-65
1
W31
JAPAN

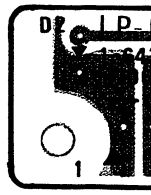
LP-65 -SOLDERING SIDE-
1-643-705-11
BVW-400A
BVW-400AP


CN13
CN14
A1
CN11
JAPAN
JR1
A9
CN-771
1-643-707-12
CN12
1
9
2 1
B9

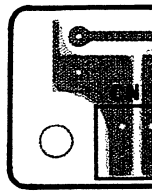
CN-771 -COMPONENT SIDE-
1-643-707-12
BVW-400A
BVW-400AP


R1
R2
R5
Q3
Q1
Q2

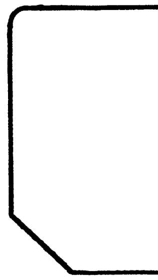
CN-771 -SOLDERING SIDE-
1-643-707-12
BVW-400A
BVW-400AP



LP-66
1-643-706-11
BVW-400A
BVW-400AP

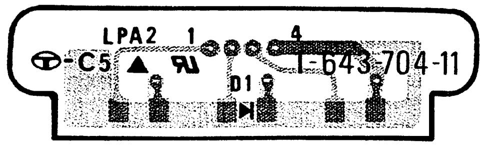


LP-66
1-643-706-11
BVW-400A
BVW-400AP



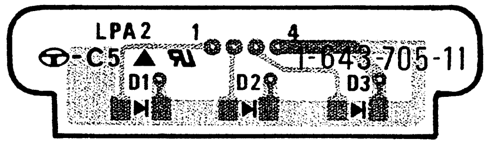
LP-64;REC LED
LP-65;FRONT TALLY LED
LP-66;BATT/TALLY,VTR SAVE LED
SW-526;SWITCH BOARD
VR-149;VOLUME CONTROL
CN-771;CONNECTOR

S/N;40361 and higher



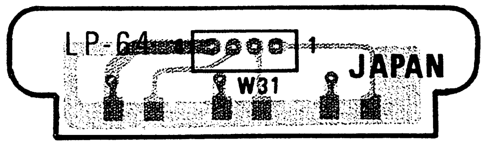
LPA2
1
4
C5
1-643-704-11
D1

LP-64 -COMPONENT SIDE-
1-643-704-11
BVW-400A
BVW-400AP



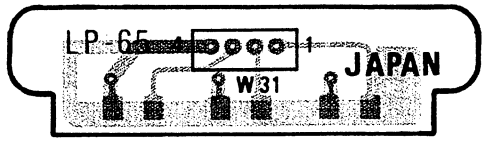
LPA2
1
4
C5
1-643-705-11
D1
D2
D3

LP-65 -COMPONENT SIDE-
1-643-705-11
BVW-400A
BVW-400AP



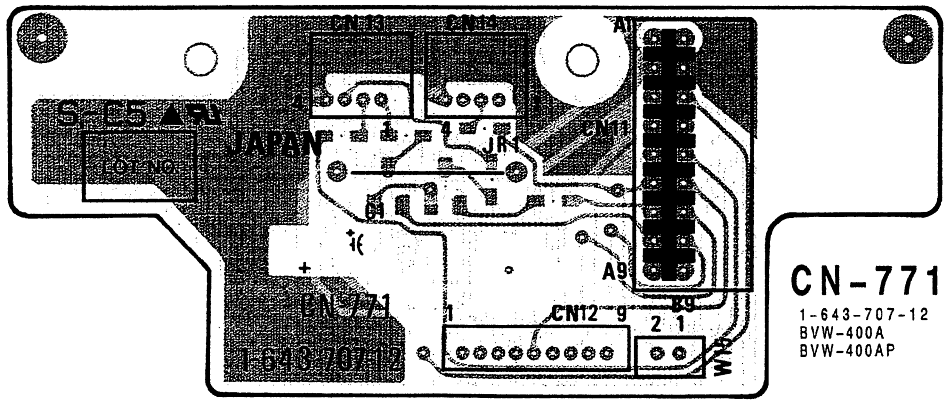
LP-64
1
JAPAN
W31

LP-64 -SOLDERING SIDE-
1-643-704-11
BVW-400A
BVW-400AP



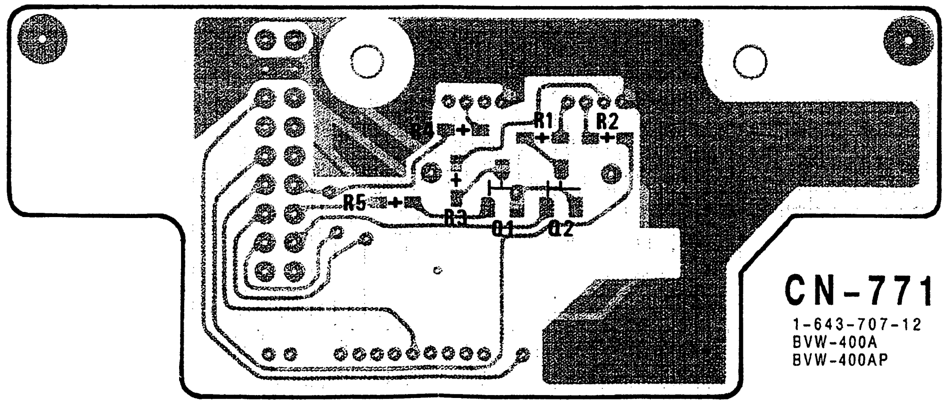
LP-65
1
JAPAN
W31

LP-65 -SOLDERING SIDE-
1-643-705-11
BVW-400A
BVW-400AP



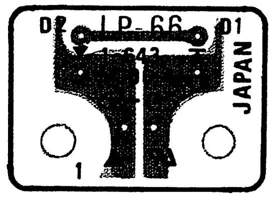
CN13
CN14
A1
S-C5
JAPAN
LOT NO.
JR1
CN11
A9
B9
CN-771
1-643-707-12
1
CN12
9
2 1
W1

CN-771 -COMPONENT SIDE-
1-643-707-12
BVW-400A
BVW-400AP



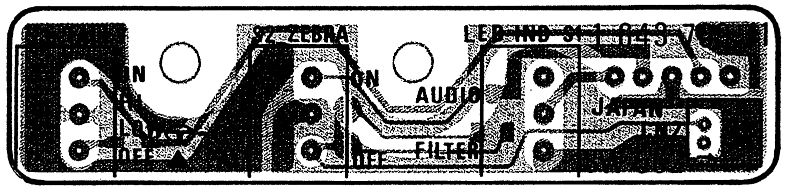
R3
R1
R2
R5
Q3
Q1
Q2

CN-771 -SOLDERING SIDE-
1-643-707-12
BVW-400A
BVW-400AP



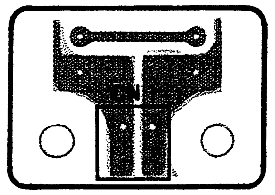
D2
LP-66
D1
JAPAN
1

LP-66 -COMPONENT SIDE-
1-643-706-11
BVW-400A
BVW-400AP

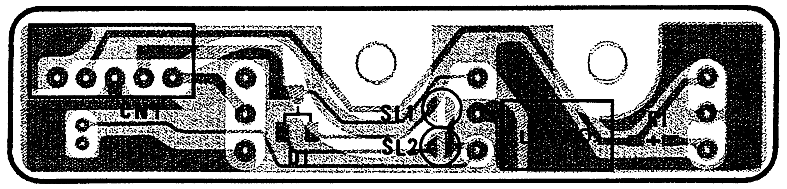


S2 ZEBRA
LED IND S1
ON
AUDIO
OFF
FILTER
JAPAN

SW-562 -COMPONENT SIDE-
1-643-709-11
BVW-400A
BVW-400AP

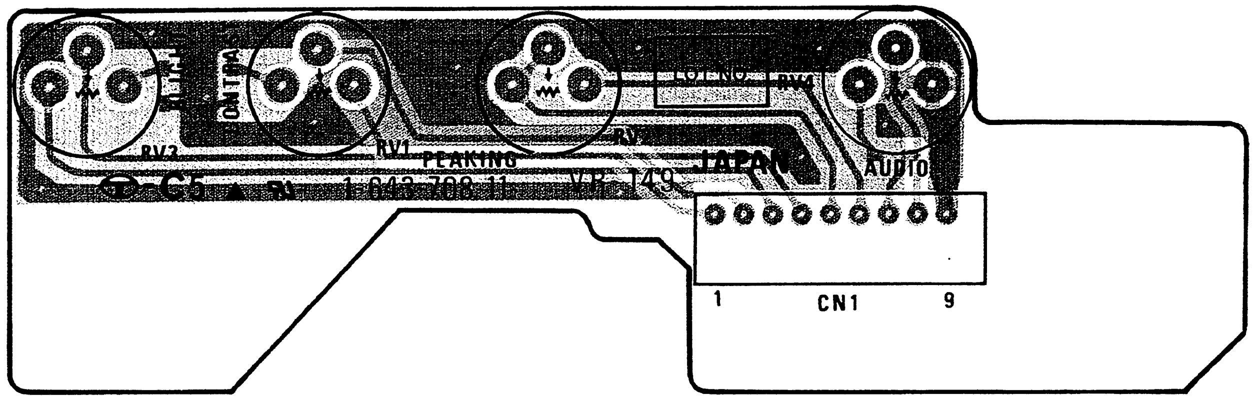


LP-66 -SOLDERING SIDE-
1-643-706-11
BVW-400A
BVW-400AP



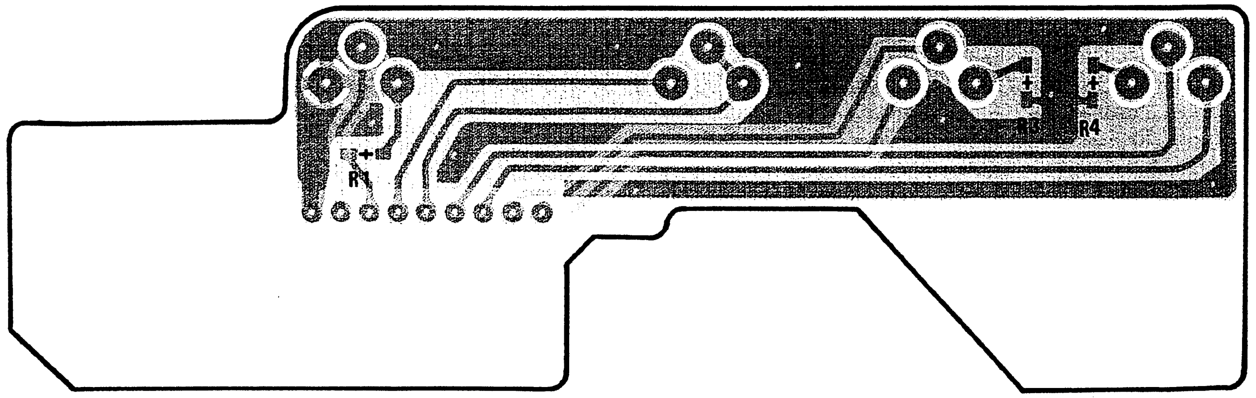
CN1
D1
SL1
SL2

SW-562 -SOLDERING SIDE-
1-643-709-11
BVW-400A
BVW-400AP



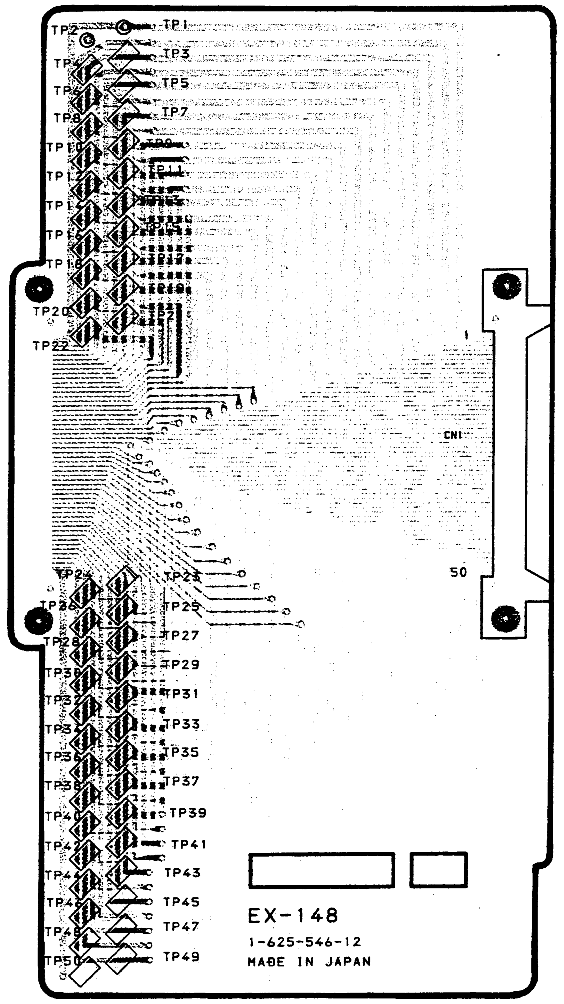
CONTRAST
RV3
RV1
PEAKING
RV2
LOT NO.
RV4
AUDIO
C5
1-643-708-11
VR-149
JAPAN
1
CN1
9

VR-149 -COMPONENT SIDE-
1-643-708-11
BVW-400A
BVW-400AP

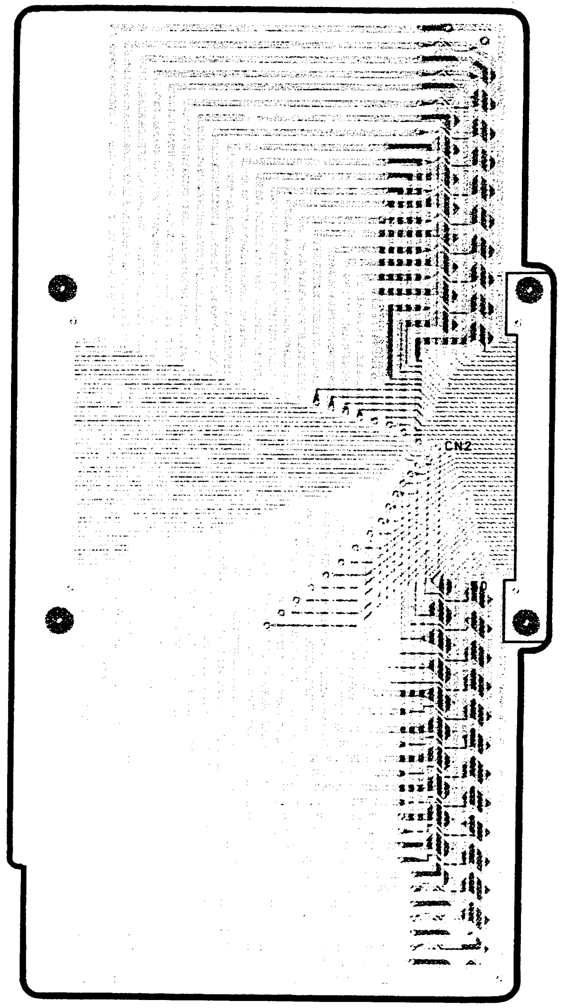


VR-149 -SOLDERING SIDE-
1-643-708-11
BVW-400A
BVW-400AP

EX-148;EXTENSION BOARD


TP1
TP2
TP3
TP5
TP7
TP8
TP10
TP20
TP22
TP24
TP23
TP25
TP26
TP27
TP28
TP29
TP30
TP31
TP33
TP35
TP37
TP39
TP40
TP41
TP42
TP43
TP45
TP47
TP49
TP50
1
CN1
50
EX-148
1-625-546-12
MADE IN JAPAN

EX-148 -COMPONENT SIDE-
1-625-546-12
BVW-400A
BVW-400AP



EX-148 -SOLDERING SIDE-
1-625-546-12
BVW-400A
BVW-400AP

SECTION 13

SPARE PARTS AND FIXTURE

13-1. PARTS INFORMATION

1. **Safety Related Component Warning**

   Components identified by shading marked with ⚠ on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation. Replace these components with Sony parts whose parts numbers appear as shown in this manual or in service manual supplements published by Sony.

2. Replace parts that are supplied from Sony Parts Center can sometimes have different shape and external appearance than what are actually used in equipment. This is due to"accommodating the improved parts and/or engineering changes" or"standardization of genuine parts."
   - This manual's exploded view and electrical spare parts lists are indicating the parts numbers of "the standardized genuine parts at present."
   - Regarding engineering parts and diagrams changes in our engineering department, refer to Sony service bulletins and service manual supplements.

3. The parts marked with"S" in the SP column of the exploded views and electrical spare parts list are normally required for routine service work. Orders for parts marked with "O" will be processed, but allow for additional delivery time.

4. Item with no parts number and/or no description are not stocked because they are seldom required for routine service.

5. **Abbreviation**

REF. No.	DESCRIPTION	REF. No.	DESCRIPTION	REF. No.	DESCRIPTION
BT	BATTERY	FB	FERRITE BEAD	RV	VARIABLE RESISTOR
BZ	BUZZER	FL	FILTER	RY	RELAY
C	CAPACITOR	IC	IC	S	SWITCH
CN	CONNECTOR	L	INDUCTOR	T	TRANSFORMER
CP	COMBINATION PARTS	LV	VARIABLE INDUCTOR	TH	THERMISTOR
CV	VARIABLE CAPACITOR	Q	TRANSISTOR	TM	TIMER
D	DIODE	R	RESISTOR	VDR	VARISTOR
DL	DELAY LINE	RB	RESISTOR BLOCK	X	OSCILLATOR

All capacitors are in micro farads unless otherwise specified.
All inductors are in micro henries unless otherwise specified.
All resistors are in ohms.

6. Regarding engineering parts changes in our engineering department, refer to SECTION 14 "CHANGED PARTS".

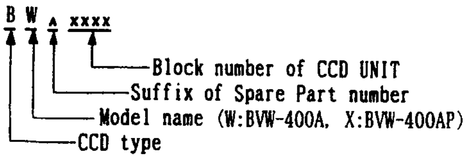
13-2. EXPLODED VIEW

FRONT PANEL

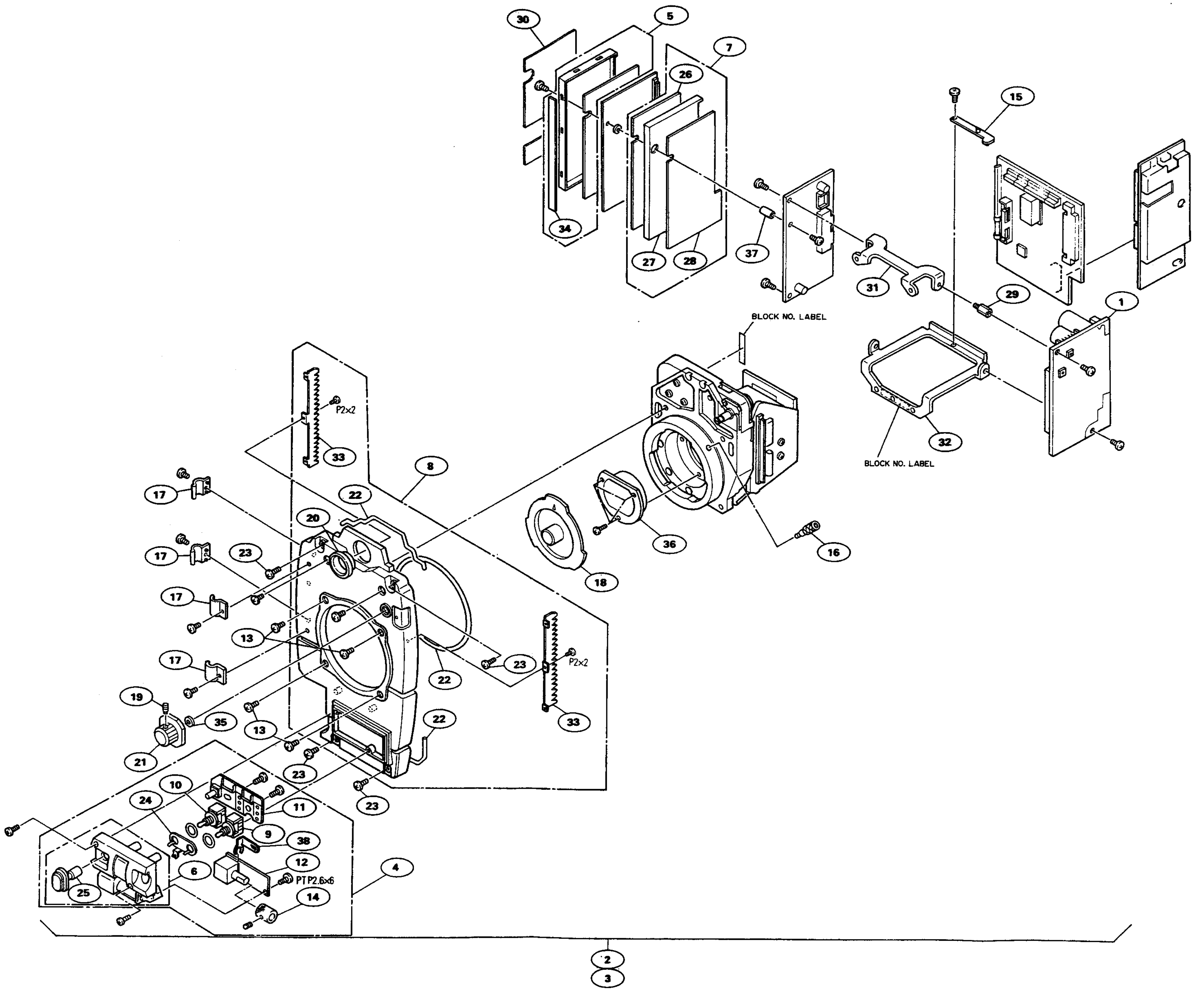
No.	Part No.	SP	Description
1	A-7515-144-A	o	MOUNTED CIRCUIT BOARD, DR-124
2	A-7575-205-B	s	CCD UNIT-W400A(N)(J,UC) *1
3	A-7575-206-C	s	CCD UNIT-W400AP(P)(EK) *2
4	A-8262-466-A	o	SW (C) ASSY, FRONT
5	X-3165-654-1	o	COVER ASSY, SHIELD
6	X-3166-695-2	o	PLATE (C) ASSY, ORNAMENTAL, SW
7	X-3710-064-3	o	CASE ASSY, SHIELD
8	X-3722-375-9	o	FRAME SUB ASSY, FRONT
9	1-554-395-00	s	SWITCH, TOGGLE "AUTO W/B BAL"
10	1-554-396-00	s	SWITCH, TOGGLE "SHUTTER"
11	1-629-570-11	o	PRINTED CIRCUIT BOARD, SW-357
12	1-643-714-11	o	PRINTED CIRCUIT BOARD, SW-563
13	2-623-773-11	s	BOLT (M3X8), STAINLESS
14	3-176-005-01	s	KNOB (EVS)
15	3-176-013-01	o	RETAINER, PC BOARD
16	3-678-629-00	s	LEVER, MOUNT
17	3-678-684-00	o	HOLDER, CABLE
18	3-699-048-01	s	CAP, MOUNT
19	3-701-505-00	s	SET SCREW, DOUBLE POINT 3X3
20	3-710-024-01	o	PACKING, VF
21	3-710-054-01	s	KNOB, FILTER
22	3-711-715-01	o	RUBBER, SHIELD
23	3-725-295-01	s	SCREW, (+) (B3)
24	3-729-068-01	o	PLATE (FR), SHIELD
25	3-729-069-01	s	BUTTON, VTR START
26	3-734-518-01	o	SHEET, INSULATING, SHIELD CASE
27	3-734-519-03	o	CASE, SHIELD
28	3-734-520-01	o	SHEET, INSULATING, SHIELD CASE
29	3-734-535-02	o	SUPPORT (STAY T)
30	3-734-593-03	o	SHEET, SHIELD COVER
31	3-742-010-01	o	STAY (T3), SHIELD PLATE
32	3-742-013-01	o	STAY (B5), SHIELD PLATE
33	3-742-064-01	o	FINGER, SHIELD
34	3-742-206-01	o	SHEET (F), SHIELD COVER
35	3-884-053-00	s	RING (O)
36	1-547-416-11	o	FILTER UNIT, OPTICAL
37	3-734-514-02	o	SUPPORT (Y)
38	3-178-338-01	o	PLATE (SW), SHIELD

※1) CCD BLOCK NUMBER; B W A xxxx
※2) CCD BLOCK NUMBER; B X B xxxx

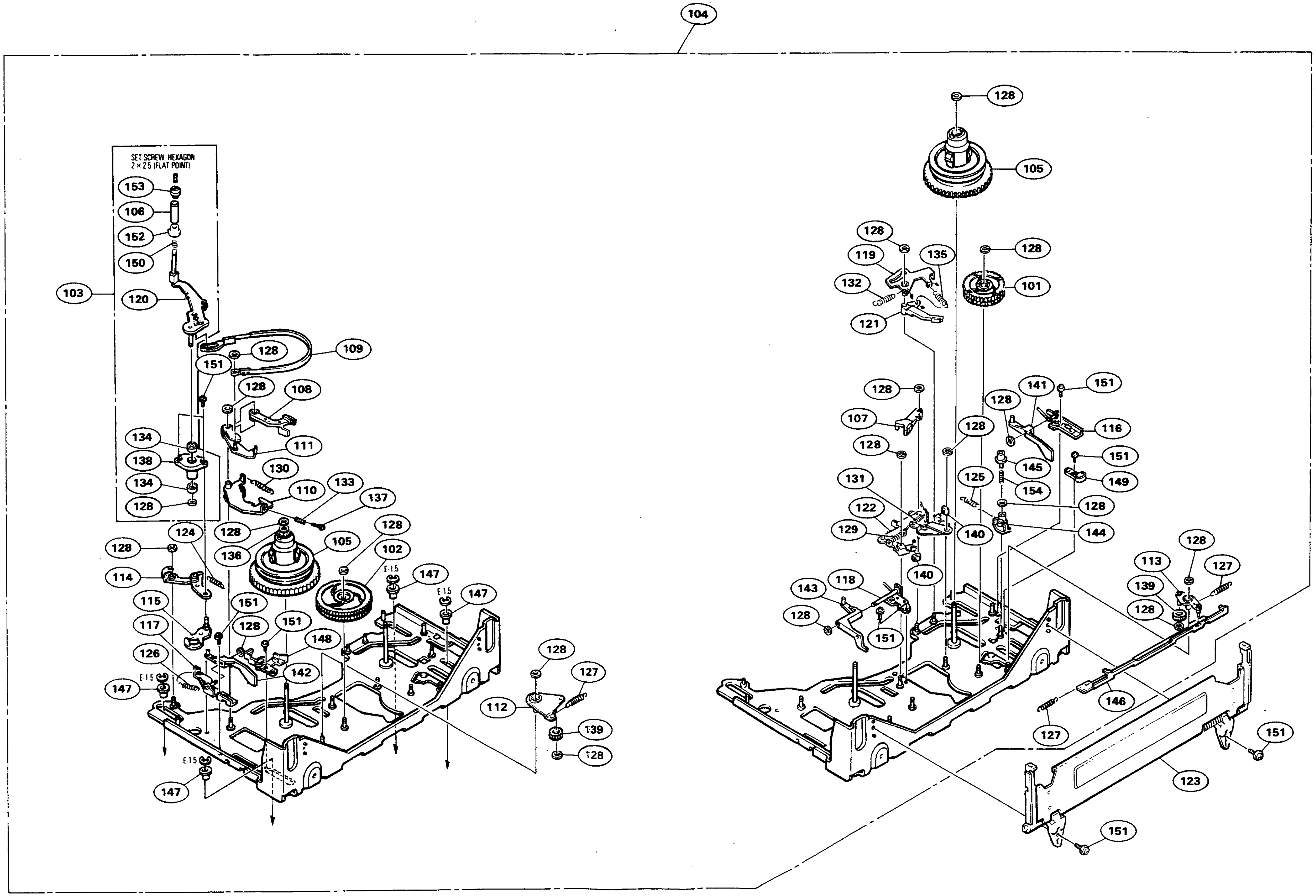
How to read the CCD BLOCK NUMBER


B W A xxxx
Block number of CCD UNIT
Suffix of Spare Part number
Model name (W:BVW-400A, X:BVW-400AP)
CCD type

FRONT PANEL


BLOCK NO. LABEL
BLOCK NO. LABEL
P2×2
P2×2
PTP2.6×6

REEL CHASSIS


104
SET SCREW, HEXAGON
2×2.5 (FLAT POINT)
153
106
152
150
103
120
109
128
151
128
108
111
130
134
138
134
128
110
133
137
124
128
136
105
128
102
128
114
E-1.5
147
E-1.5
147
115
151
117
128
151
148
126
142
E-1.5
147
E-1.5
147
128
127
112
139
128
128
105
128
119
135
128
132
101
121
128
141
151
128
107
116
128
128
151
145
131
125
154
149
122
128
129
140
144
140
128
113
127
143
118
139
128
128
151
146
127
151
123
151

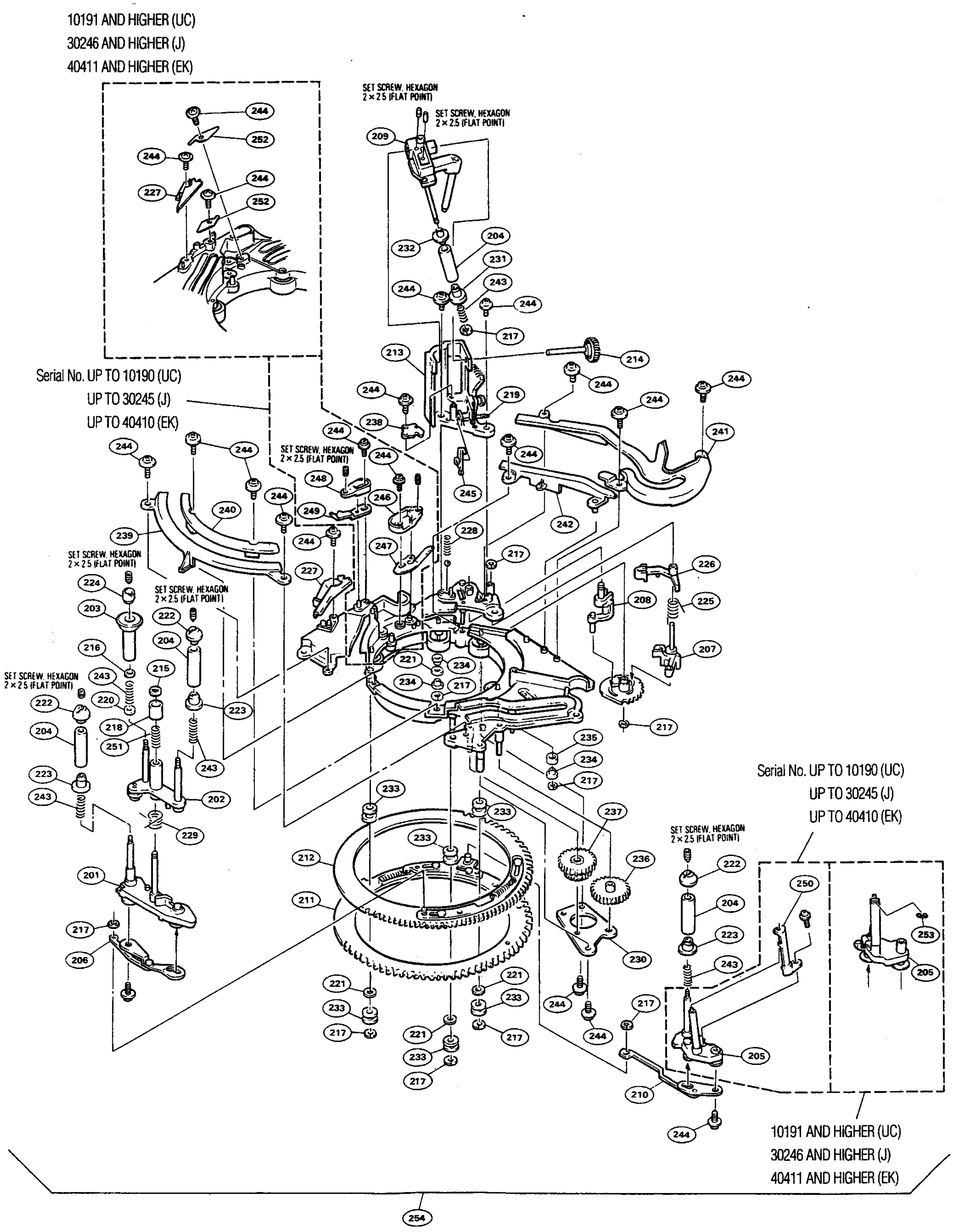
REEL CHASSIS

No.	Part No.	SP	Description
101	A-6740-091-D	s	IDLER ASSY, T
102	A-6740-092-D	s	IDLER ASSY, S
103	A-6742-067-K	s	TENSION REGULATOR ASSY
104	A-6771-030-G	o	CHASSIS ASSY, REEL
105	X-3722-321-3	s	TABLE ASSY, REEL
106	X-3722-322-1	s	ROLLER ASSY, POM
107	X-3722-323-1	s	BRAKE ASSY, T SOFT
108	X-3722-324-3	s	BRAKE ASSY, S SOFT
109	X-3722-325-3	s	BAND ASSY, TENSION REGULATOR
110	X-3722-326-2	o	LEVER (A) ASSY, SUPPORT LEVER
111	X-3722-327-3	o	SUPPORT (B) ASSY, BAND
112	X-3722-328-1	o	ARM ASSY, S JOINT GEAR
113	X-3722-329-1	o	ARM ASSY, T JOINT GEAR
114	X-3722-330-1	o	HOOK ASSY, SPRING
115	X-3722-331-1	o	DRIVING ASSY,TENSION REGULATOR
116	X-3722-332-1	o	HOLDER (A) ASSY
117	X-3722-333-3	o	HOLDER (B) ASSY
118	X-3722-334-1	o	HOLDER (C) ASSY
119	X-3722-335-2	o	LEVER ASSY, PINCH ARM LOCK
120	X-3722-351-8	o	ARM ASSY, TENSION REGULATOR
121	X-3722-410-1	s	BRAKE ASSY, T SUB SOFT
122	X-3722-421-1	o	SLIDER ASSY, BRAKE
123	X-3722-423-1	o	PLATE (B) ASSY, BLIND
124	3-489-310-XX	s	SPRING, TENSION, T19
125	3-514-127-01	s	SPRING, TENSION
126	3-527-025-00	s	SPRING, TENSION
127	3-527-189-11	s	SPRING, TENSION
128	3-559-408-11	s	WASHER, POLYETHYLENE, DIA.1.2
129	3-564-935-00	s	SPRING, TENSION
130	3-567-028-11	s	SPRING, TENSION
131	3-570-590-00	s	SPRING, TENSION
132	3-570-951-00	s	SPRING, TENSION
133	3-573-150-00	s	SPRING, COMPRESSION
134	3-650-312-00	s	BEARING, BALL (NO FLANGE)
135	3-667-309-00	s	SPRING, TENSION
136	3-701-437-21	s	WASHER
137	3-703-502-71	s	SCREW
138	3-722-325-02	o	BOSS, ARM BEARING
139	3-722-344-01	s	GEAR, JOINT
140	3-722-354-01	o	RUBBER, BRAKE
141	3-722-357-01	s	LEVER (A), REC. MISTAKE
142	3-722-360-01	s	LEVER (B), REC. MISTAKE
143	3-722-363-01	s	LEVER, METAL DETECTION
144	3-722-367-01	o	HOLDER, DETECTION PIN
145	3-722-368-01	o	PIN, CASSETTE DETECTION
146	3-722-458-03	o	LINK (A), JOINT GEAR
147	3-723-007-01	s	ROLLER, LS
148	3-723-011-03	s	HOLDER (RIGHT), SLIDE PIN
149	3-723-012-01	s	HOLDER (LEFT), SLIDE PIN
150	3-729-011-01	s	SPRING, COMPRESSION
151	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
152	3-729-026-04	o	FLANGE (B), LOWER
153	3-729-079-05	s	FLANGE,UPPER,TENSION REGULATOR
154	4-879-762-00	s	SPRING, COMPRESSION

SLANT

No.	Part No.	SP	Description
201	X-3722-313-5	s	BASE ASSY, S
202	X-3722-314-3	s	BASE ASSY, S SUB
203	X-3722-315-2	s	IR-2 ASSY
204	X-3722-319-1	s	ROLLER ASSY
205	X-3167-773-1	s	BASE ASSY (RP), T Serial No. UP TO 10190 (UC) UP TO 30245 (J) UP TO 40410 (EK)
	X-3722-355-5	s	BASE ASSY, T Serial No. 10191 AND HIGHER(UC) 30246 AND HIGHER(J) 40411 AND HIGHER(EK)
206	X-3722-382-1	o	PULL ASSY, S
207	X-3722-383-2	o	LINK ASSY, T SUB FIXED
208	X-3722-384-3	o	LINK ASSY, T SUB ROTARY
209	X-3722-385-5	s	BASE ASSY, T SUB
210	X-3722-386-2	o	PLATE ASSY, PULL, T
211	X-3722-388-5	o	RING (T) ASSY, LOATING
212	X-3722-389-3	o	RING (S) ASSY, LOATING
213	X-3722-390-2	o	TABLE ASSY, ROTARY, T SUB
214	X-3722-409-1	o	SHAFT ASSY, MAIN, T SUB ROTARY
215	3-321-813-01	s	WASHER, COTTER POLYETHYLENE
216	3-557-565-00	s	WASHER, 1.4 DAI, SMALL
217	3-559-408-11	s	WASHER, POLYETHYLENE, DIA.1.2
218	3-657-842-01	s	SPACER (3X4)
219	3-669-481-02	s	PIN (DIA. 1), PARALLEL
220	3-695-567-01	s	WASHER, M SLIDER
221	3-701-436-01	s	WASHER, 1.6
222	3-722-400-02	s	FLANGE (C), UPPER
223	3-722-401-02	s	FLANGE (A), LOWER
224	3-722-402-02	o	NUT, IR
225	3-724-770-01	o	SPRING
226	3-724-772-02	o	ARM, T,S FIXED
227	3-724-775-02	o	PLATE, OPEN, S
228	3-724-788-01	s	SPRING, COMPRESSION
229	3-724-789-02	s	SPRING
230	3-724-792-02	o	REINFORCEMENT, GEAR
231	3-724-793-02	s	FLANGE (A), ROLLER
232	3-724-794-01	s	FLANGE (B), ROLLER
233	3-724-799-01	s	FLANGE, RING
234	3-725-201-01	s	ROLLER, RING
235	3-725-202-02	o	ROLLER, SUB
236	3-725-203-01	o	GEAR, S DRIVING MIDWAY
237	3-725-204-01	o	GEAR, S DRIVING
238	3-725-205-01	o	PLATE, ADJUSTMENT, T SUB
239	3-725-214-02	s	RAIL (O), S
240	3-725-215-02	s	RAIL (I), S
241	3-725-217-04	s	RAIL (O), T
242	3-725-218-02	s	RAIL (I), T
243	3-729-011-01	s	SPRING, COMPRESSION
244	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
245	3-729-020-01	o	PLATE, FIXED, T SUB
246	3-729-040-01	o	PLATE, INDUCTION, T Serial No. UP TO 10190 (UC) UP TO 30245 (J) UP TO 40410 (EK)
247	3-729-041-01	o	SPRING Serial No. UP TO 10190 (UC) UP TO 30245 (J) UP TO 40410 (EK)
248	3-729-042-01	o	PLATE, INDUCTION, S Serial No. UP TO 10190 (UC) UP TO 30245 (J) UP TO 40410 (EK)
249	3-729-043-01	o	SPRING Serial No. UP TO 10190 (UC) UP TO 30245 (J) UP TO 40410 (EK)
250	3-729-073-01	s	GUIDE, TENTION Serial No. UP TO 10190 (UC) UP TO 30245 (J) UP TO 40410 (EK)
251	4-879-762-00	s	SPRING, COMPRESSION
252	3-179-393-01	s	RETAINER, GUIDE Serial No. 10191 AND HIGHER(UC) 30246 AND HIGHER(J) 40411 AND HIGHER(EK)
253	3-179-394-01	s	GUIDE, H Serial No. 10191 AND HIGHER(UC) 30246 AND HIGHER(J) 40411 AND HIGHER(EK)
254	A-8274-742-A	o	SLANT ASSY (RP)

SLANT


10191 AND HIGHER (UC)
30246 AND HIGHER (J)
40411 AND HIGHER (EK)
SET SCREW, HEXAGON 2×2.5 (FLAT POINT)
SET SCREW, HEXAGON 2×2.5 (FLAT POINT)
Serial No. UP TO 10190 (UC)
UP TO 30245 (J)
UP TO 40410 (EK)
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SET SCREW, HEXAGON 2×2.5 (FLAT POINT)
Serial No. UP TO 10190 (UC)
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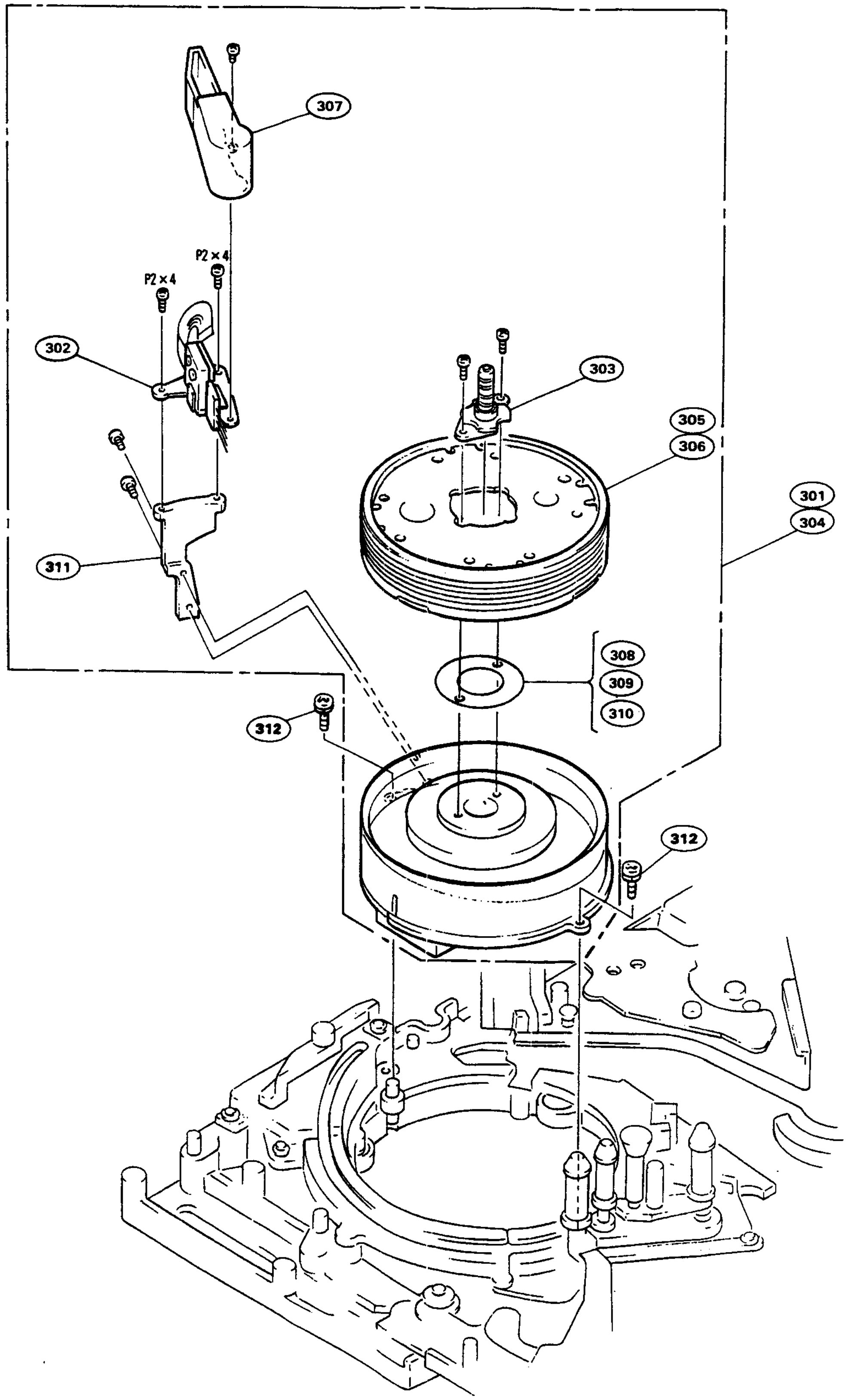
UP TO 40410 (EK)
SET SCREW, HEXAGON 2×2.5 (FLAT POINT)
10191 AND HIGHER (UC)
30246 AND HIGHER (J)
40411 AND HIGHER (EK)

DRUM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P2×4
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DRUM

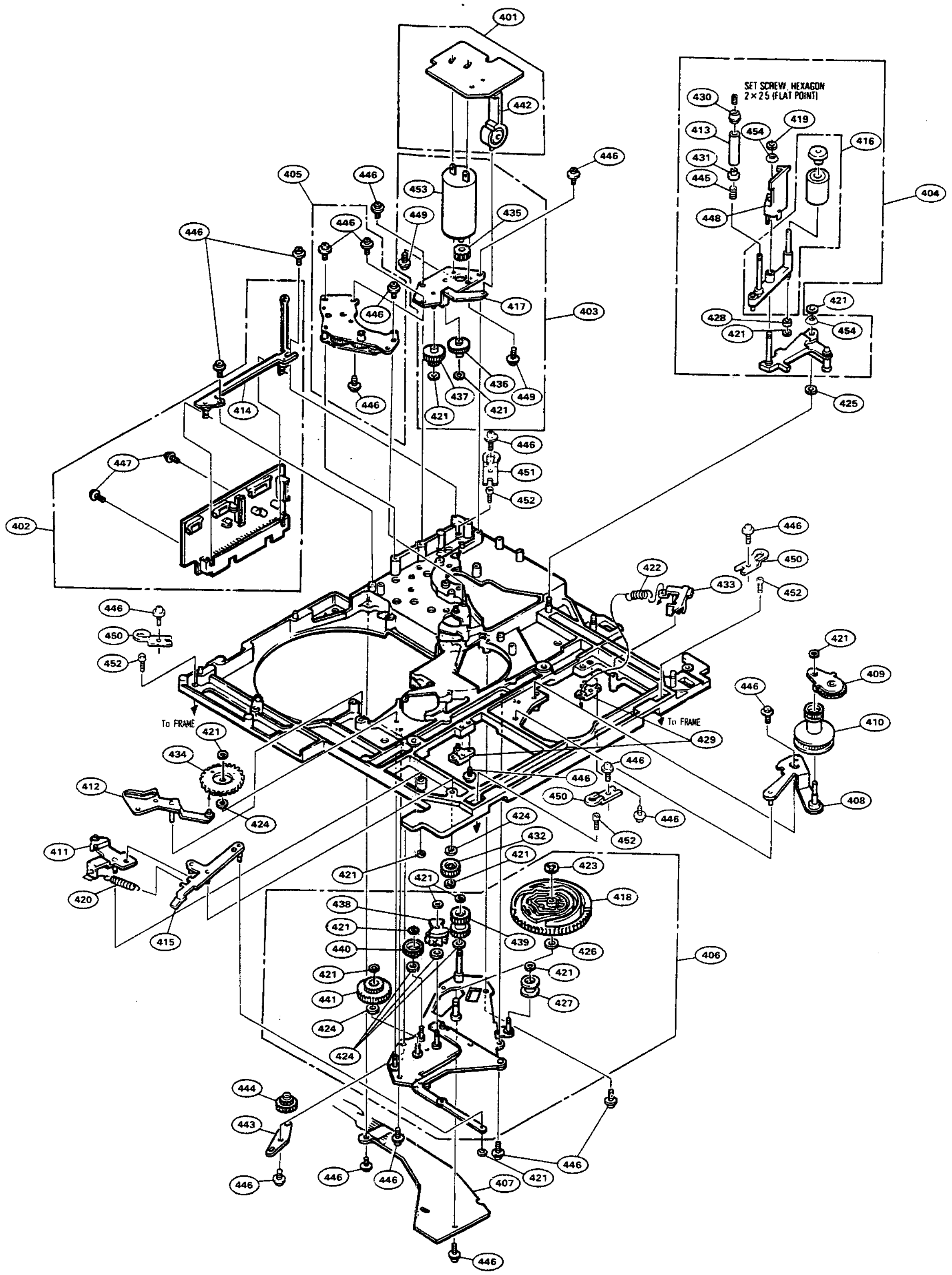
No.	Part No.	SP	Description
301	A-6050-611-A	s	HEAD DRUM ASSY DBH-14A-R(EK)
302	A-6050-648-A	s	BRUSH ASSY
303	A-6050-652-A	s	SLIP RING ASSY
304	A-6050-673-A	s	HEAD DRUM ASSY DBH-15A-R (J, UC)
305	A-6762-406-A	s	UPPER DRUM ASSY DBR-14A-R (EK)
306	A-6762-418-A	s	UPPER DRUM ASSY DBR-15A-R (J, UC)
307	3-717-148-01	o	COVER, BRUSH
308	3-717-150-01	o	SPACER, FRANGE (0.01T)
309	3-717-150-11	o	SPACER, FRANGE (0.03T)
310	3-717-150-21	o	SPACER, FRANGE (0.05T)
311	3-717-178-03	o	SUPPORT, BRUSH
312	3-729-012-01	s	SCREW (M2X5)

LOADING GEAR/CAM GEAR

LOADING GEAR/CAM GEAR

No.	Part No.	SP	Description
401	A-6725-602-A	o	MOUNTED CIRCUIT BOARD, LD-21
402	A-6725-604-A	o	MOUNTED CIRCUIT BOARD, TB-5
403	A-6737-190-C	s	MOTOR ASSY, LOADING
404	A-6747-262-K	s	ARM ASSY, PINCH
405	A-6750-231-B	s	GEAR BLOCK ASSY
406	A-6750-233-B	s	GEAR SUB ASSY, CAM
407	A-6754-072-A	o	MOUNTED CIRCUIT BOARD, SR-40
408	X-3722-304-1	o	BASE ASSY
409	X-3722-306-3	s	GEAR ASSY
410	X-3722-307-1	s	PULLEY ASSY, MIDWAY
411	X-3722-308-1	o	LEVER ASSY, RELEASE, ST
412	X-3722-316-1	o	ARM ASSY, DRIVING
413	X-3722-319-1	s	ROLLER ASSY
414	X-3722-343-1	o	HOLDER (40P) ASSY, CONNECTOR
415	X-3722-357-1	o	LINK ASSY, EJECT
416	X-3722-363-4	s	PINCH ASSY, SUB
417	X-3722-364-3	o	BRACKET ASSY, MOTOR
418	X-3722-369-2	s	CAM ASSY, FUNCTION
419	3-321-813-01	s	WASHER, COTTER POLYETHYLENE
420	3-531-794-00	s	SPRING, TENSION
421	3-559-408-11	s	WASHER, POLYETHYLENE, DIA.1.2
422	3-668-508-00	s	SPRING, TENSION
423	3-669-595-00	s	WASHER (2), STOPPER
424	3-701-436-11	s	WASHER, 1.6 POLYETHYLENE
425	3-701-438-01	s	WASHER
426	3-701-438-21	s	WASHER
427	3-722-369-01	s	PULLEY, IDLER
428	3-722-382-01	s	ROLLER, PINCH ARM
429	3-722-390-01	o	HOOK, SPRING, SHUTTER
430	3-722-400-02	s	FLANGE (C), UPPER
431	3-722-401-02	s	FLANGE (A), LOWER
432	3-722-430-01	o	GEAR, JOINT
433	3-722-460-01	o	SHUTTER, CASSETTE DETECTION
434	3-723-010-01	o	GEAR, REEL SLIDER DRIVING
435	3-723-062-01	s	GEAR (M0)
436	3-723-064-01	s	GEAR (M1)
437	3-723-065-01	s	GEAR (M2)
438	3-723-080-02	o	GEAR, CLUB
439	3-723-081-01	o	GEAR (T)
440	3-723-082-02	o	GEAR, T DRIVING MIDWAY
441	3-723-083-02	o	GEAR, ST DRIVING
442	3-723-091-01	o	HOLDER, TOP SENSOR
443	3-725-206-01	o	BRACKET, T GEAR
444	3-725-207-02	o	GEAR, T DRIVING
445	3-729-011-01	s	SPRING, COMPRESSION
446	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
447	3-729-013-41	s	SCREW(M1.4X3.5),WASHERHEAD(+P)
448	3-729-046-03	o	GUARD, PINCH TAPE
449	3-729-076-01	s	SCREW (+B) (2X3)
450	3-729-081-01	o	RETAINER (A), SCREW
451	3-729-082-01	o	RETAINER (B), SCREW
452	3-729-084-21	s	BOLT (M2X5), HEXAGON HOLE
453	8-835-308-01	s	MOTOR, DC LN18-S1N1B
454	3-729-098-01	s	WASHER, SPRING

LOADING GEAR/CAM GEAR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SET SCREW, HEXAGON
2×25 (FLAT POINT)
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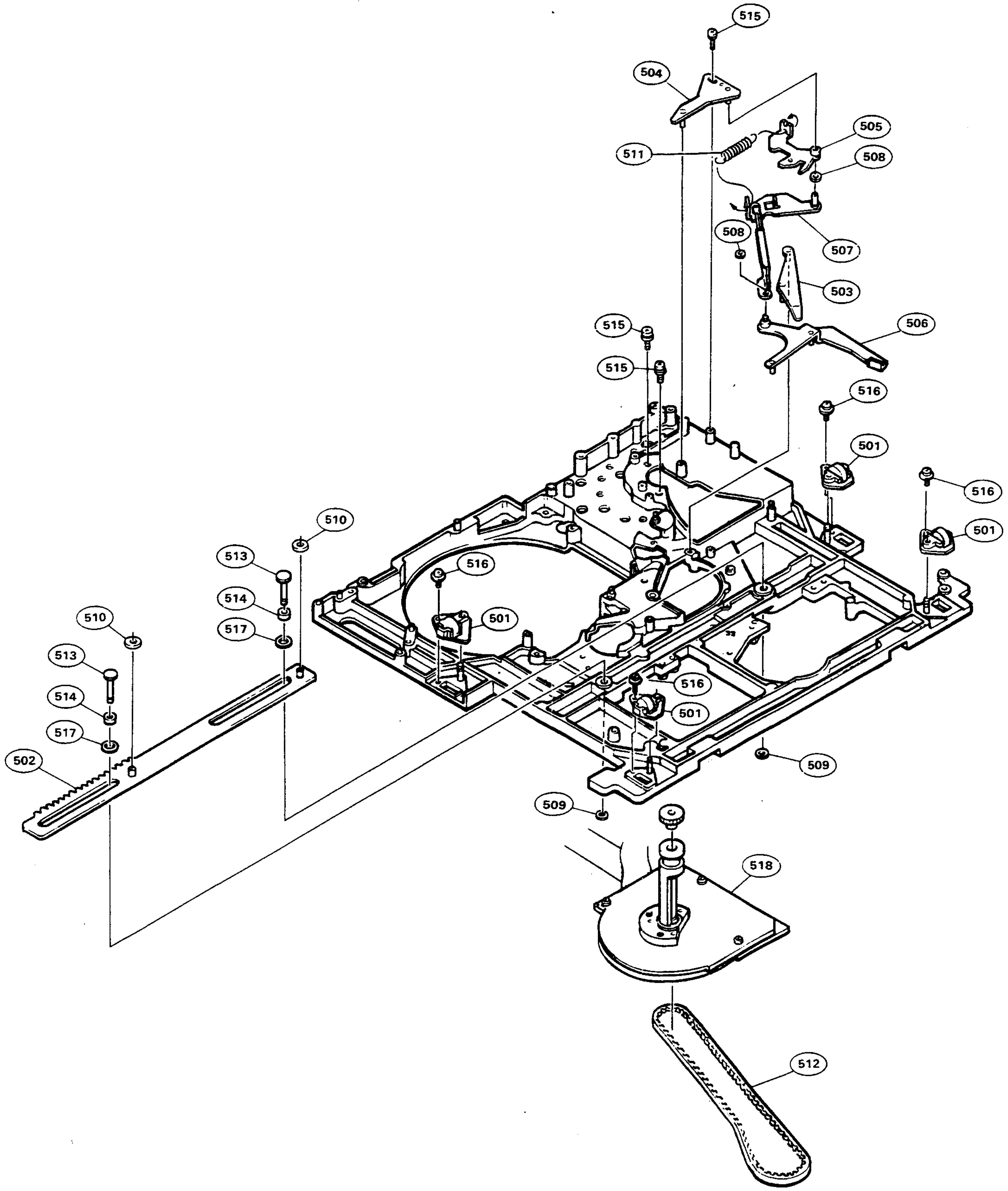
PINCH PRESS MECHANISM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PINCH PRESS MECHANISM

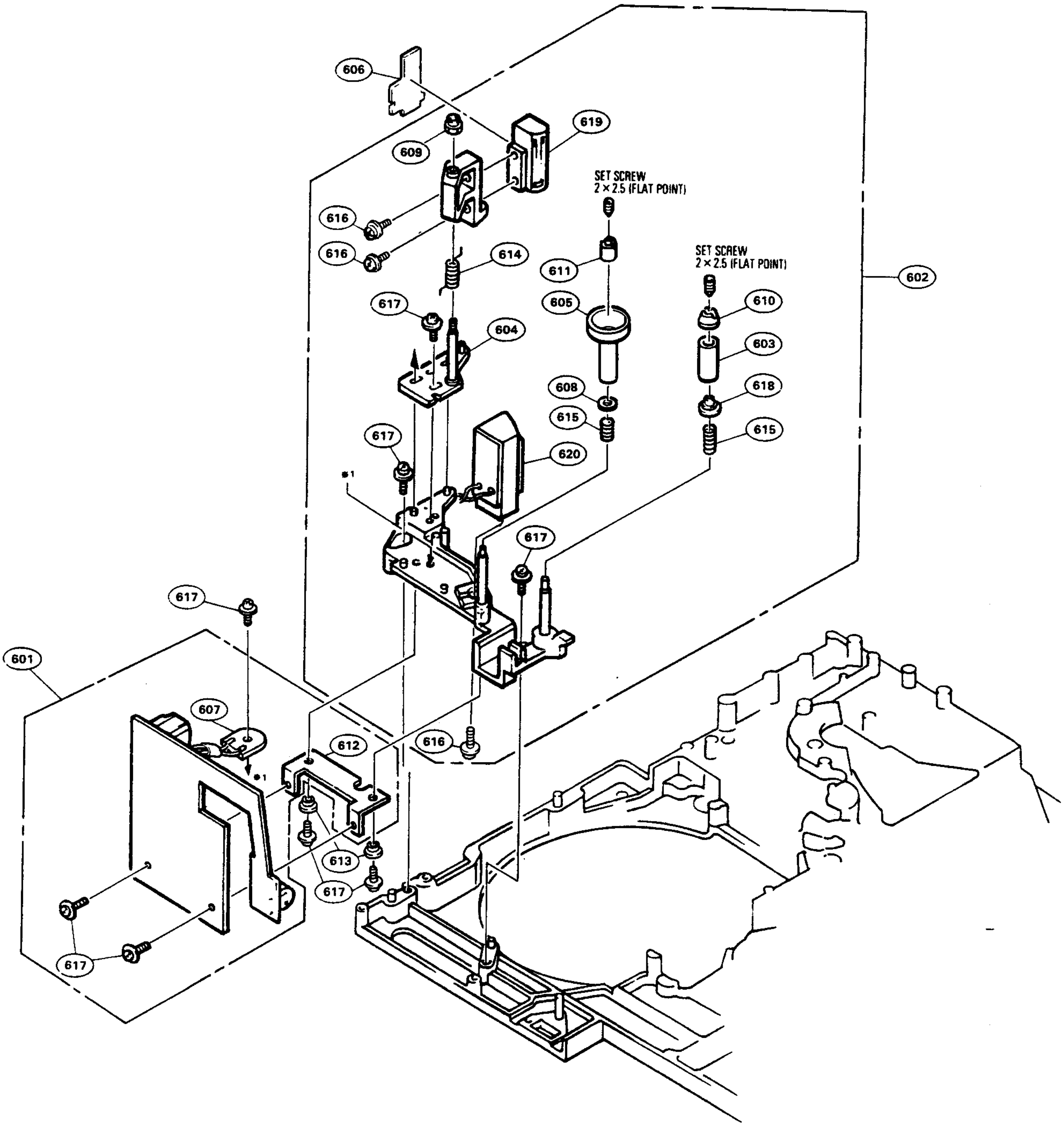
No.	Part No.	SP	Description
501	X-3722-301-1	s	ROLLER ASSY, REEL CHASSIS
502	X-3722-309-1	o	SLIDER ASSY, REEL
503	X-3722-310-3	o	LEVER ASSY, BRAKE
504	X-3722-311-1	o	SUPPORT ASSY, P LEVER
505	X-3722-312-1	o	LEVER (C) ASSY, PRESS
506	X-3722-345-1	o	JOINT ASSY, PINCH
507	X-3722-346-2	o	LEVER ASSY, PRESS
508	3-559-408-00	s	POLY-WASHER, 1.2 DIA
509	3-559-408-11	s	WASHER, POLYETHYLENE, DIA. 1.2
510	3-701-439-21	s	WASHER
511	3-701-788-XX	s	SPRING, TENSION, T18
512	3-722-452-01	s	BELT, TIMING
513	3-723-008-01	o	RETAINER, ROLLER
514	3-723-009-01	s	ROLLER, SLIDER PLATE
515	3-729-012-01	s	SCREW (M2X5)
516	3-729-013-21	s	SCREW(M1.4X2.5), WASHERHEAD(+P)
517	3-729-025-01	s	WASHER
518	8-835-313-01	s	MOTOR, DC U-19A

CTL HEAD BASE

CTL HEAD BASE

No.	Part No.	SP	Description
601	A-6725-603-A	o	MOUNTED CIRCUIT BOARD, FE-4
602	A-6736-080-E	o	HEAD SUB ASSY, CTL
603	X-3722-322-1	s	ROLLER ASSY, POM
604	X-3722-341-1	o	PLATE ASSY, HEAD, CTL
605	X-3722-342-4	s	IR-1 ASSY
606	1-625-969-11	o	PRINTED CIRCUIT BOARD, DUS-246
607	1-806-682-71	s	SENSER, DEW CONDENSATION
608	3-557-565-00	s	WASHER, 1.4 DAI, SMALL
609	3-698-829-01	s	NUT (M2)
610	3-722-400-02	s	FLANGE (C), UPPER
611	3-722-402-02	o	NUT, IR
612	3-722-419-01	o	HOLDER, FE-4
613	3-722-420-01	s	SPACER, FE-4 HOLDER
614	3-723-092-02	s	SPRING
615	3-729-011-01	s	SPRING, COMPRESSION
616	3-729-012-01	s	SCREW (M2X5)
617	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
618	3-742-003-01	s	FLANGE (S), LOWER
619	8-825-560-41	s	HEAD, CTL RS-253-21
620	8-825-772-61	s	HEAD, ERASE EF291-21A

CTL HEAD BASE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SET SCREW
2 × 2.5 (FLAT POINT)
611
605
SET SCREW
2 × 2.5 (FLAT POINT)
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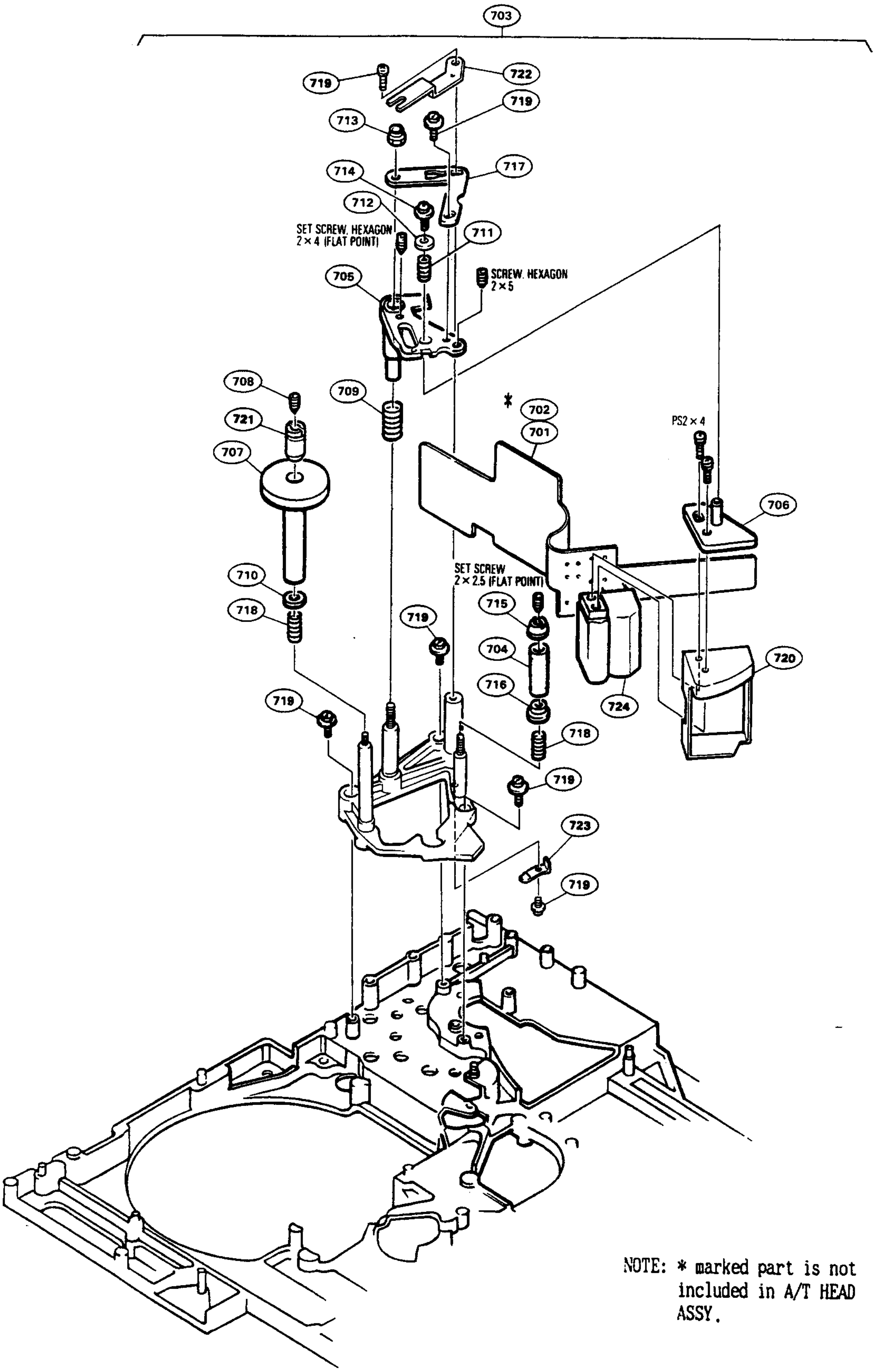
A/T HEAD BASE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SET SCREW, HEXAGON
2 × 4 (FLAT POINT)
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SCREW, HEXAGON
2 × 5
708
709
721
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702
701
PS2 × 4
706
SET SCREW
2 × 2.5 (FLAT POINT)
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NOTE: * marked part is not included in A/T HEAD ASSY.

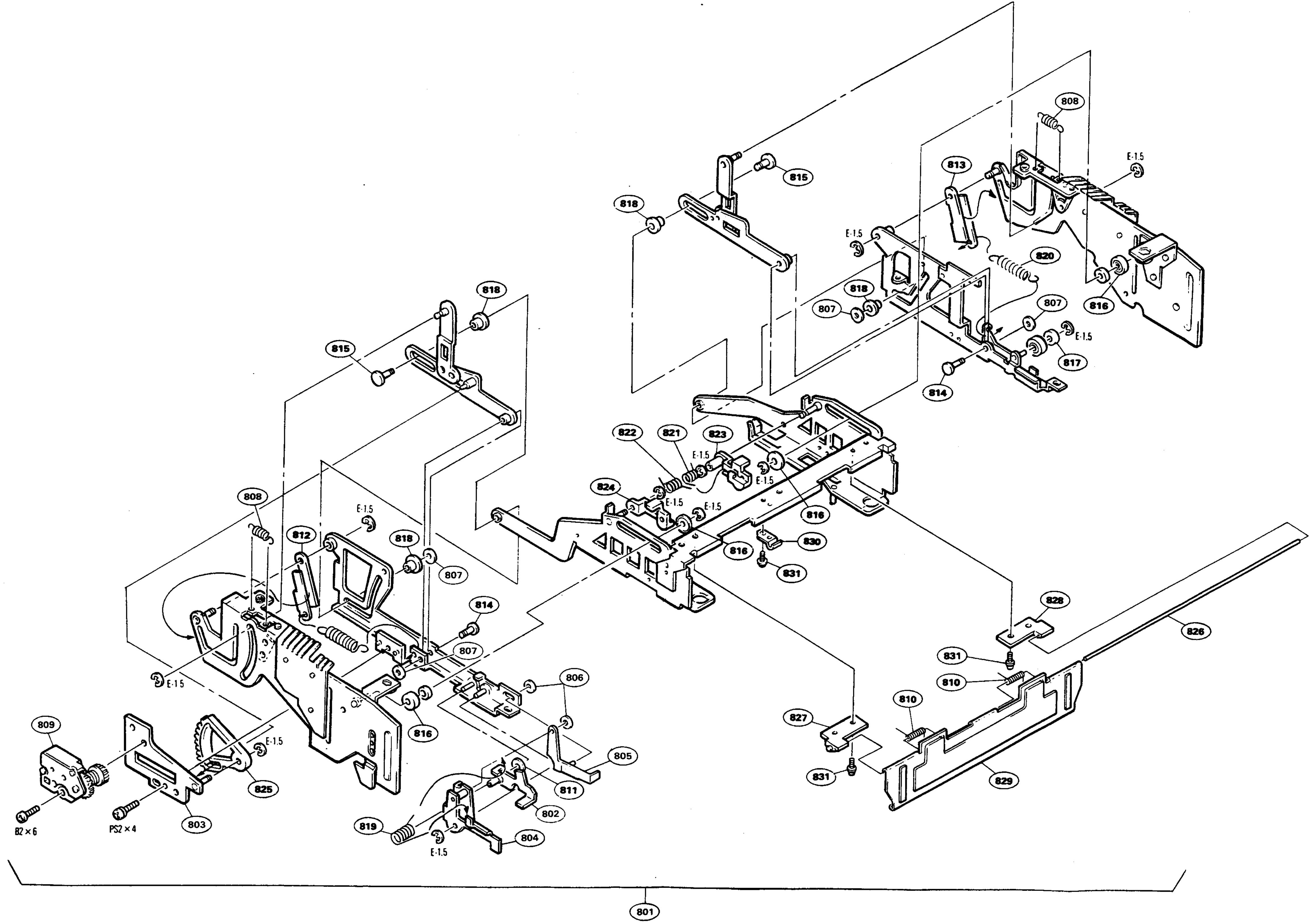
A/T HEAD BASE

No.	Part No.	SP	Description
701	A-6713-332-A	o	FLEXIBLE CARD WIRE, FL-55(J,UC)
702	A-6713-349-A	o	FLEXIBLE CARD WIRE, FL-55P(EK)
703	A-6736-078-A	o	HEAD ASSY, A/T (NOT INCLUDING FL-55/55P)
704	X-3722-319-1	s	ROLLER ASSY
705	X-3722-338-3	o	PLATE (UPPER) ASSY, A/T
706	X-3722-339-3	o	PLATE (LOWER) ASSY, A/T
707	X-3722-340-4	s	IR-3 ASSY
708	2-123-868-02	s	SCREW (2X6)
709	3-534-236-00	s	SPRING, COMPRESSION
710	3-557-565-00	s	WASHER, 1.4 DAI, SMALL
711	3-669-316-00	s	SPRING, COMPRESSION
712	3-695-567-01	s	WASHER, M SLIDER
713	3-698-829-01	s	NUT (M2)
714	3-703-502-31	s	SCREW
715	3-722-400-02	s	FLANGE (C), UPPER
716	3-722-401-02	s	FLANGE (A), LOWER
717	3-722-412-15	o	DAMPER, A/T
718	3-729-011-01	s	SPRING, COMPRESSION
719	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
720	3-729-027-11	o	CASE, SHIELD, A/T
721	3-729-066-01	o	NUT, IR-3
722	3-729-067-02	o	PLATE, INDICATION, IR-3
723	3-742-002-01	o	DAMPER, W & F
724	8-825-749-02	s	HEAD, AU PPS244-2103

CASSETTE-UP COMPARTMENT

No.	Part No.	SP	Description
801	A-7408-093-C	s	CASSETTE COMPARTMENT ASSY
802	X-3722-358-3	s	STOPPER ASSY
803	X-3722-361-2	o	FITTING ASSY, DAMPER
804	X-3722-381-4	s	ARM ASSY, LOCK
805	X-3722-412-1	o	LEVER ASSY, RELEASE
806	3-315-384-11	s	WASHER, STOPPER
807	3-321-813-01	s	WASHER, COTTER POLYETHYLENE
808	3-674-402-00	s	SPRING, TENSION
809	3-681-528-00	o	DAMPER
810	3-695-515-02	o	SPRING
811	3-701-436-21	s	WASHER, POLYEHTHYLENE
812	3-723-016-01	o	LEVER (RIGHT), LID OPEN
813	3-723-017-01	o	LEVER (LEFT), LID OPEN
814	3-723-042-01	o	SHAFT, LINK
815	3-723-043-01	o	SHAFT, CASSETTE HOLDER
816	3-723-044-01	o	RETAINER, BEARING
817	3-723-044-11	o	RETAINER, BEARING
818	3-723-045-02	o	ROLLER, HOLDER SLIDE
819	3-723-052-01	s	SPRING (A), TORSION
820	3-723-053-01	o	SPRING (A), TENSION
821	3-723-054-01	o	SPRING (L), CASSETTE RETAINER
822	3-723-055-01	o	SPRING (R), CASSETTE RETAINER
823	3-723-067-03	o	RETAINER (LEFT), CASSETTE
824	3-723-068-01	o	RETAINER (RIGHT), CASSETTE
825	3-723-086-01	o	GEAR, DAMPER DRIVING
826	3-723-087-01	s	SHAFT (A), BLIND PLATE
827	3-723-088-02	s	GUIDE (RIGHT), CASSETTE
828	3-723-089-02	s	GUIDE (LEFT), CASSETTE
829	3-723-090-03	s	PLATE (A), BLIND
830	3-725-298-01	o	PLATE, INDICATION, BLIND
831	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)

CASSETTE-UP COMPARTMENT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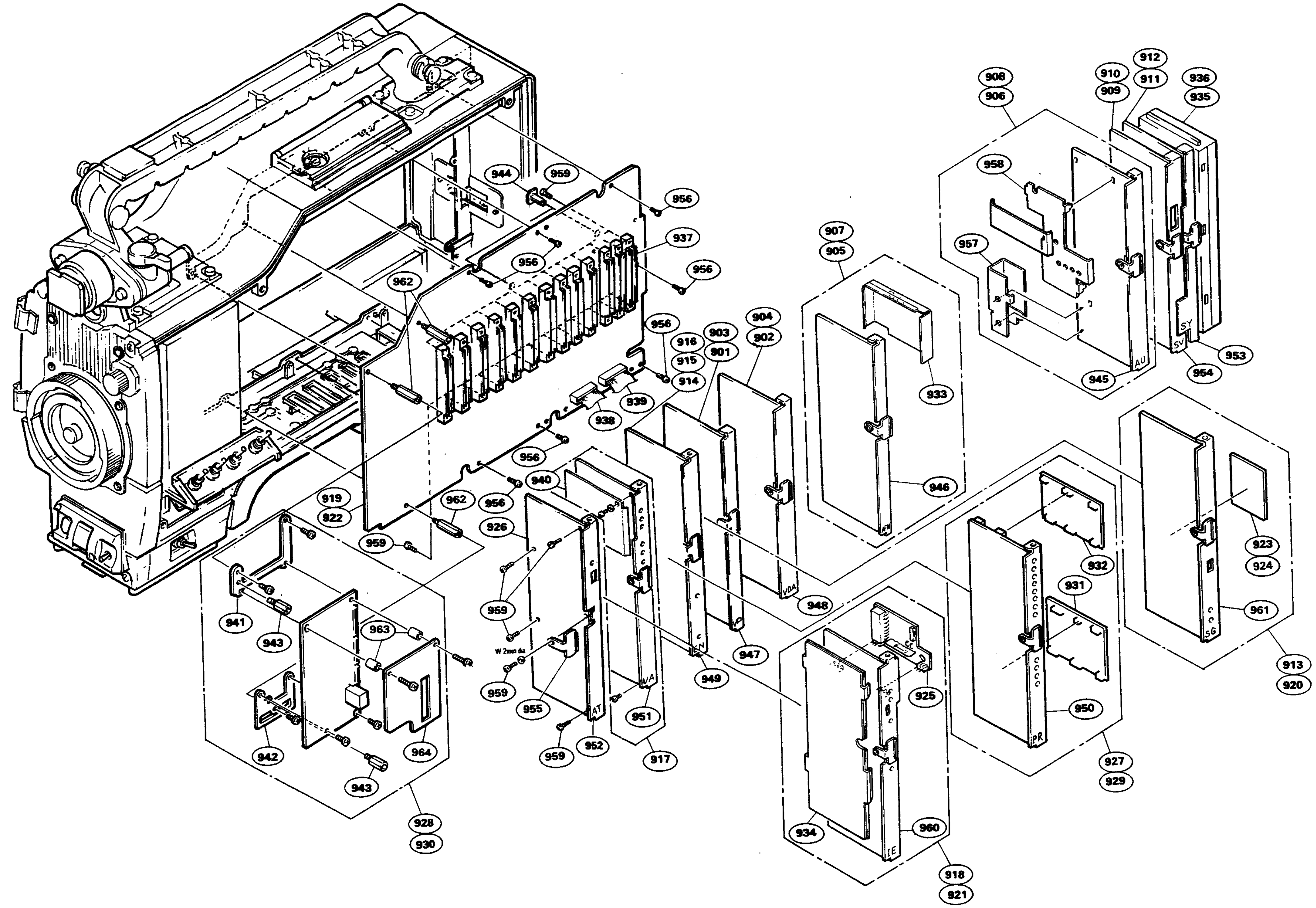
PRINT CIRCUIT BOARD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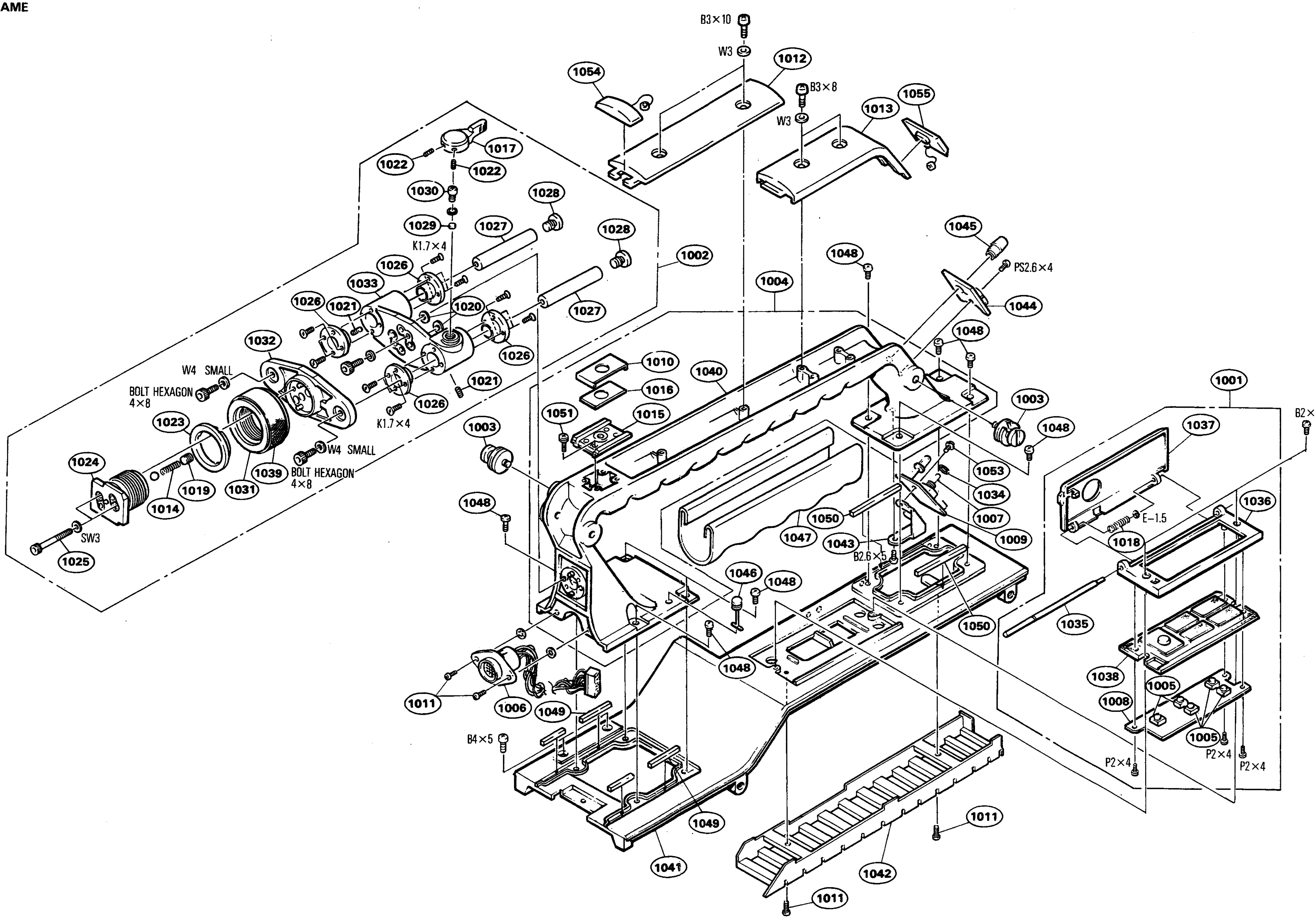
PRINT CURCUIT BOARD

No.	Part No.	SP	Description
901	A-6711-932-B	o	MOUNTED CIRCUIT BOARD, VP-24 (J,UC)
902	A-6711-933-C	o	MOUNTED CIRCUIT BOARD, VDA-11(J,UC)
903	A-6711-992-A	o	MOUNTED CIRCUIT BOARD, VP-24P (EK)
904	A-6711-993-B	o	MOUNTED CIRCUIT BOARD, VDA-11P (EK)
905	A-6713-319-B	o	MOUNTED CIRCUIT BOARD, AFM-6 (J,UC)
906	A-6713-320-A	o	MOUNTED CIRCUIT BOARD, AU-97 (J,UC)
907	A-6713-350-A	o	MOUNTED CIRCUIT BOARD, AFM-6P (EK)
908	A-6713-351-A	o	MOUNTED CIRCUIT BOARD, AU-97P (EK)
909	A-6715-436-A	o	MOUNTED CIRCUIT BOARD, SV-97A(J,UC)
910	A-6715-438-A	o	MOUNTED CIRCUIT BOARD, SV-97AP (EK)
911	A-6717-576-A	o	MOUNTED CIRCUIT BOARD, SY-117C(J,UC)
912	A-6717-577-A	o	MOUNTED CIRCUIT BOARD, SY-117CP(EK)
913	A-8271-759-A	o	MOUNTED CIRCUIT BOARD, SG-152B(J,UC)
914	A-7513-949-A	o	MOUNTED CIRCUIT BOARD, EN-79U (UC)
915	A-7513-950-A	o	MOUNTED CIRCUIT BOARD, EN-79 (J)
916	A-7513-961-A	o	MOUNTED CIRCUIT BOARD, EN-79P (EK)
917	A-7515-147-B	o	MOUNTED CIRCUIT BOARD, VA-104
918	A-7515-150-A	o	MOUNTED CIRCUIT BOARD, IE-30 (J,UC)
919	A-7515-151-A	o	MOUNTED CIRCUIT BOARD, MB-317(J,UC)
920	A-8271-781-A	o	MOUNTED CIRCUIT BOARD, SG-152BP(EK)
921	A-7515-156-A	o	MOUNTED CIRCUIT BOARD, IE-30P(EK)
922	A-7515-157-A	o	MOUNTED CIRCUIT BOARD, MB-317P (EK)
923	A-7520-420-A	o	MOUNTED CIRCUIT BOARD, SG-157(J,UC)
924	A-7520-489-A	o	MOUNTED CIRCUIT BOARD, SG-157P (EK)
925	A-7520-521-A	o	MOUNTED CIRCUIT BOARD, IE-31
926	A-8271-329-B	o	MOUNTED CIRCUIT BOARD, AT-49B
927	A-8271-330-A	o	MOUNTED CIRCUIT BOARD, PR-176U (UC)
928	A-8271-331-A	o	MOUNTED CIRCUIT BOARD, IF-298A(UC,EK)
929	A-8271-333-A	o	MOUNTED CIRCUIT BOARD, PR-176(J,EK)
930	A-8271-334-A	o	MOUNTED CIRCUIT BOARD, IF-298AJ (J)
931	1-810-067-11	s	BP-020
932	1-810-066-11	s	BP-021
933	X-3166-340-2	s	PLATE (AFM) ASSY, SHIELD
934	X-3722-411-5	o	PLATE (CARD) ASSY, SHIELD
935	1-464-995-21	s	CONVERTRER, DC-DC(CD-89B)(J,UC)
936	1-464-995-41	s	CONVERTER, DC-DC (CD-89)(EK)
937	1-566-962-11	o	CONNECTOR, BOARD TO BOARD, 50P
938	1-625-891-11	s	FLEXIBLE CARD WIRE, FL-45
939	1-625-892-11	s	FLEXIBLE CARD WIRE, FL-46
940	3-172-056-02	o	PARTITION
941	3-176-007-01	o	BRACKET (A), IF
942	3-176-008-01	o	BRACKET (B), IF
943	3-176-009-01	o	SUPPORT (TG)
944	3-722-391-01	o	HOLDER, GP2S09
945	3-724-704-01	o	PLATE (AU-97), ORNAMENTAL
946	3-724-705-01	o	PLATE (AFM-6), ORNAMENTAL
947	3-724-706-01	o	PLATE (VP-24), ORNAMENTAL
948	3-724-707-01	o	PLATE (VDA-11), ORNAMENTAL
949	3-724-709-01	o	PLATE (EN-62), ORNAMENTAL
950	3-724-710-01	o	PLATE (PR-102), ORNAMENTAL
951	3-724-711-02	o	PLATE (VA-62), ORNAMENTAL
952	3-724-713-01	o	PLATE (AT-49), ORNAMENTAL
953	3-724-714-01	o	PLATE (SY-117), ORNAMENTAL
954	3-724-715-01	o	PLATE (SV-97), ORNAMENTAL
955	3-724-753-01	o	RING
956	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
957	3-729-031-01	o	CASE(AU-1), SHEILD
958	3-729-032-03	o	CASE(AU-2), SHEILD
959	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
960	3-734-712-02	o	PLATE (IE-20), ORNAMENTAL
961	3-734-721-01	o	PLATE (SG-152), ORNAMENTAL
962	3-742-031-01	o	SUPPORT (IF)
963	3-742-072-01	o	SPACER (IF)
964	3-742-073-11	o	COVER, IF

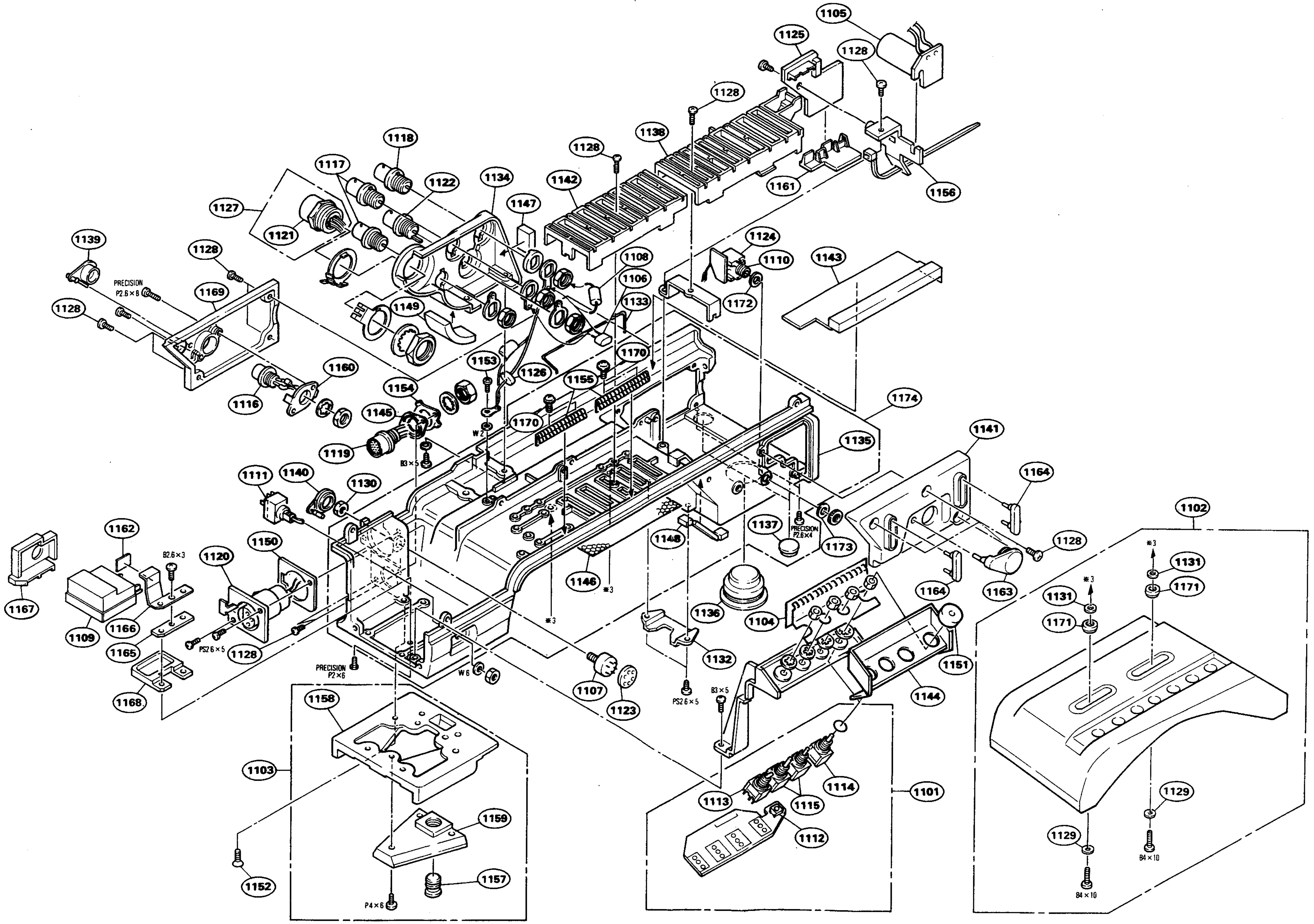
TOP FRAME

No.	Part No.	SP	Description
1001	A-6731-155-A	s	KEY BOARD ASSY
1002	A-7612-331-F	o	SLIDE ASSY, VF
1003	X-3672-208-2	o	SUSPENSION ASSY (B)
1004	X-3722-370-7	o	HANDLE ASSY
1005	1-554-371-51	s	SWITCH, TACT
1006	1-565-051-11	o	CONNECTOR, ROUND (WITH C) 20P "VF"
1007	1-570-608-11	s	SWITCH, TOGGLE "BACK TALLY"
1008	1-625-549-11	o	PRINTED CIRCUIT BOARD, KY-124
1009	1-625-555-11	o	PRINTED CIRCUIT BOARD, SW-291
1010	2-277-468-01	o	PLATE, ORNAMENTAL, CAMERA SHOE
1011	3-166-603-01	s	SCREW (2.6), +B
1012	3-176-499-01	o	COVER (A), HANDLE
1013	3-176-500-01	o	COVER (B), HANDLE
1014	3-641-622-00	s	SPRING, COMPRESSION
1015	3-657-700-00	s	BRACKET, ACCESSORY
1016	3-672-213-00	o	SHEET, ADHESIVE
1017	3-673-046-00	s	LEVER, LOCK
1018	3-673-281-00	o	SPRING, COMPRESSION
1019	3-682-760-01	o	SCREW (M7-0.75), ADJUSTMENT
1020	3-685-166-01	o	WASHER, SCREW CLAMP
1021	3-701-506-01	s	SET SCREW, DOUBLE POINT 3X4
1022	3-701-508-00	s	SET SCREW, DOUBLE POINT 3X6
1023	3-710-018-01	s	COLLAR, SLIDE
1024	3-710-039-03	s	SHOE, SLIDE
1025	3-711-765-01	s	BOLT (M3), HEXAGON SOCKET
1026	3-711-790-01	o	SPACER (A)
1027	3-711-791-01	o	ARM
1028	3-711-792-01	o	SCREW
1029	3-711-793-01	o	CUSHION (STOPPER)
1030	3-711-794-01	o	PIN, STOPPER
1031	3-711-795-01	o	RING (B), LOCK
1032	3-711-796-03	o	TABEL, FIXED, VF SHOE
1033	3-711-797-07	o	TABEL, FIXED, VF SLIDE
1034	3-717-825-01	o	RING, O
1035	3-717-854-01	o	SHAFT, KEY BOARD COVER
1036	3-718-042-21	o	FRAME, KEY BOARD
1037	3-718-043-23	o	COVER, KEY BOARD
1038	3-718-044-01	s	COVER, KEY BOARD RUBBER
1039	3-720-919-01	o	RUBBER, LOCK RING
1040	3-722-467-08	o	HANDLE
1041	3-722-469-08	o	FRAME, TOP
1042	3-724-736-01	o	GUIDE (UPPER), PC BOARD
1043	3-724-762-01	s	HOLDER
1044	3-724-763-01	o	COVER, BT
1045	3-724-764-01	s	HOLDER, LED
1046	3-725-234-01	s	RUBBER (DIA.7), DROP PROTECTION
1047	3-725-260-03	s	GRIP, RUBBER
1048	3-725-295-01	s	SCREW, (+) (B3)
1049	3-725-296-11	s	FILTER (HANDLE)
1050	3-725-296-21	s	FILTER (HANDLE)
1051	3-729-012-01	s	SCREW (M2X5)
1053	3-729-013-21	s	SCREW(M1.4X2.5), WASHERHEAD(+P)
1054	3-177-363-01	o	LID (A), COVER
1055	3-177-364-01	o	LID (B), COVER

TOP FRAME


B3×10
W3
B3×8
W3
K1.7×4
PS2.6×4
W4 SMALL
BOLT HEXAGON 4×8
K1.7×4
B2×5
W4 SMALL
BOLT HEXAGON 4×8
E–1.5
SW3
B2.6×5
B4×5
P2×4
P2×4
P2×4

BOTTOM FRAME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PRECISION P2.6×8
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PRECISION P2.6×4
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PSZ6×5
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PRECISION P2×6
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PSZ6×5
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B4×10
B4×10
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P4×6

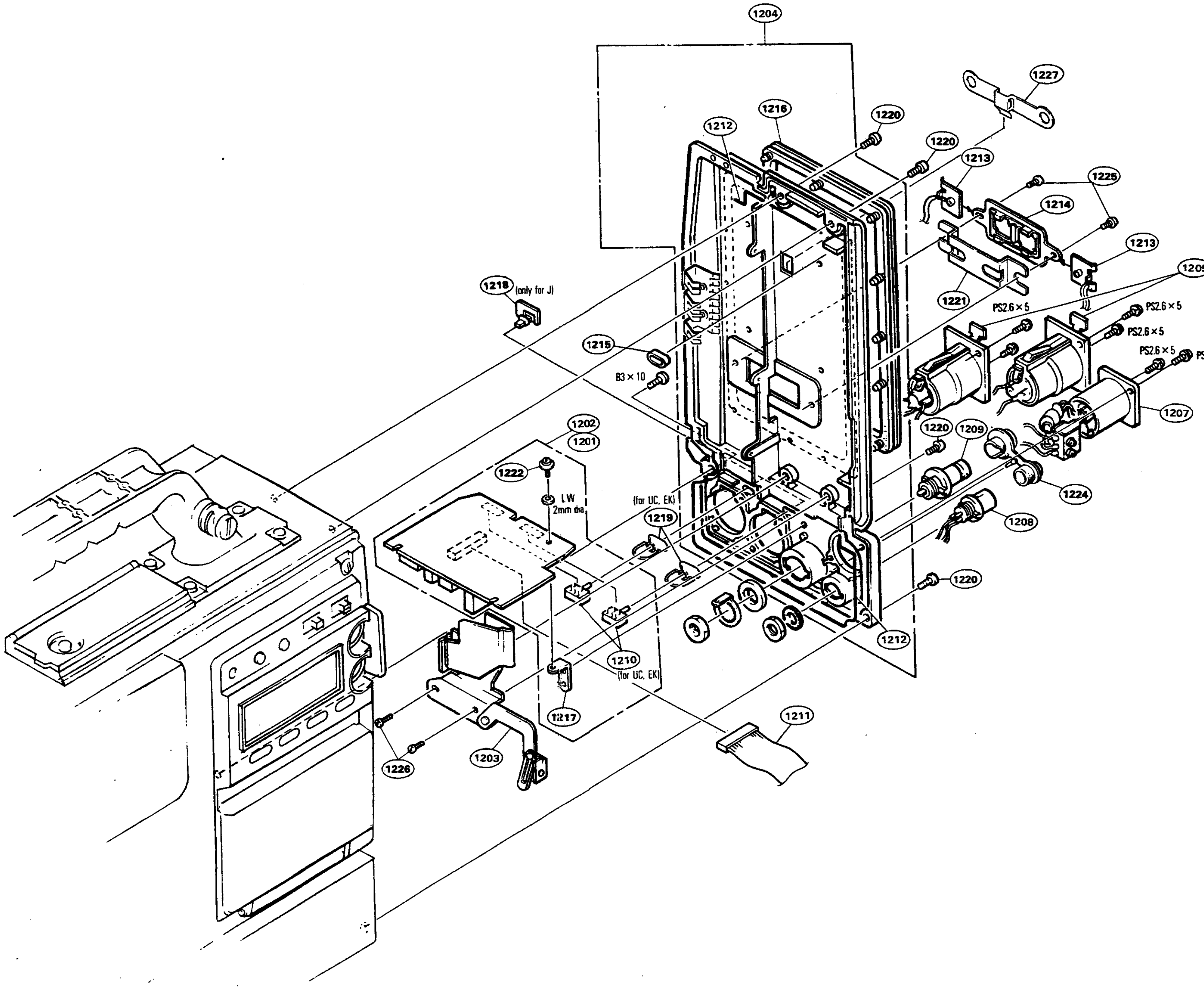
BOTTOM FRAME

No.	Part No.	SP	Description
1101	A-7520-307-A	o	MOUNTED CIRCUIT BOARD, SW-220
1102	A-7612-315-A	s	PAD ASSY, SHOULDER
1103	A-7612-385-A	s	SHOE (B) ASSY, V
1104	X-3166-761-1	o	FINGER (SW) ASSY, SHIELD
1105	1-124-440-11	s	CAP, ELECT 3300MF
1106	1-162-710-11	s	CAP, CERAMIC 100PF A
1107	1-223-165-00	s	RES, ADJ, WIREWOUND 10K
1108	1-249-404-00	s	RES, CARBON (SMALL) 82
1109	1-466-158-13	s	CONVERTER UNIT, DC-DC
1110	1-507-980-21	s	JACK
1111	1-553-448-00	s	SWITCH, TOGGLE
1112	1-553-856-00	s	SWITCH, KEYBOARD
1113	1-554-355-00	s	SWITCH, TOGGLE
1114	1-554-356-00	s	SWITCH, TOGGLE
1115	1-554-400-00	s	SWITCH, TOGGLE
1116	1-561-233-21	s	CONNECTOR (RECEPTACLE) 6P
1117	1-561-781-11	s	CONNECTOR, BNC (RECEPTACLE)
1118	1-561-781-21	s	CONNECTOR, BNC (RECEPTACLE)
1119	1-562-221-21	s	RECEPTACLE, CONNECTOR 12P
1120	1-563-029-21	s	CONNECTOR (RECEPTACLE) 3P
1121	1-563-971-11	s	CONNECTOR (R-F) 20P
1122	1-565-764-11	s	CONNECTOR ASSY, BNC
1123	1-625-554-13	o	PRINTED CIRCUIT BOARD, VR-77
1124	1-627-593-11	o	PRINTED CIRCUIT BOARD, HP-43
1125	1-634-967-11	o	PRINTED CIRCUIT BOARD, CN-400
1126	1-806-504-11	s	VARISTOR ERZ-C05DK820
1127	1-940-619-11	o	HARNESS, SUB (ADP)
1128	3-166-603-01	s	SCREW (2.6), +B
1129	3-646-184-00	s	SPACER
1130	3-664-519-00	o	NUT (M4)
1131	3-687-116-01	o	WASHER (4), STOPPER
1132	3-711-703-01	o	STOPPER
1133	3-711-715-01	o	RUBBER, SHIELD
1134	3-722-462-03	o	FRAME, BNC
1135	3-722-471-06	o	FRAME, BOTTOM
1136	3-723-096-01	o	OVER, BREAKER
1137	3-723-097-01	o	FOOT, RUBBER
1138	3-724-720-01	o	GUIDE (LOWER REAR), PC BOARD
1139	3-724-730-02	s	RUBBER (EA), DROP PROTECTION
1140	3-724-731-02	s	RUBBER (PE), DROP PROTECTION
1141	3-724-734-04	o	PANEL, MAIN SWITCH ORNAMENTAL
1142	3-724-735-01	o	GUIDE (LOWER FRONT), PC BOARD
1143	3-725-226-01	o	PARTITION (L)
1144	3-725-243-01	s	RUBBER (CAM), DROP PROTECTION
1145	3-725-297-01	o	SPACER (LENS)
1146	3-729-002-01	s	FILTER, VENTILATION
1147	3-729-003-01	o	FILTER (LEFT SIDE PLATE 2)
1148	3-729-004-01	s	FILTER (BOTTOM 2)
1149	3-729-005-01	s	FILTER (BNC)
1150	3-729-006-01	s	SHEET (AUDIO), DROP PROTECTION
1151	3-729-007-01	o	PLATE, ORNAMENTAL, TOGGLE SW
1152	3-729-072-01	s	SCREW, +K (4X8)
1153	3-729-076-11	s	SCREW (+B) (2X4)
1154	3-729-092-01	o	BRACKET (A)
1155	3-729-095-01	o	SHIELD, FINGER Serial No. UP TO 10147 (UC) UP TO 30180 (J) UP TO 40315 (EK)
	3-178-382-01	o	FINGER (BOTTOM), SHIELD Serial No. 10148 AND HIGHER (UC) 30181 AND HIGHER (J) 40316 AND HIGHER (EK)
1156	3-734-732-01	o	HOLDER, CONDENSER
1157	3-742-011-01	s	SCREW, 1/4, 3/8 CONVERSION
1158	3-742-012-01	s	SHOE (B), CAMERA
1159	3-742-015-01	o	WEDGE (B), MOUNTING
1160	3-742-016-01	o	BRACKET, REMOTE
1161	3-742-029-01	o	GUIDE, PC BOARD
1162	3-742-030-01	o	SHEET (DD), INSULATING
1163	3-742-034-01	s	RUBBER (EJ), DROP PROTECTION
1164	3-742-035-01	o	STOPPER, ORNAMENTAL PANEL
1165	3-742-036-01	o	BRACKET, DD CONVERTER
1166	3-742-047-01	o	RETAINER, DD CONVERTER
1167	3-742-048-01	o	HOLDER, DD CONVERTER
1168	3-742-049-01	o	SPACER, DD CONVERTER
1169	3-742-050-01	s	BRACKET, REMOTE
1170	3-729-013-01	s	SCREW (M1.4X1.6) WASHER HEAD (+P) Serial No. 10148 AND HIGHER (UC) 30181 AND HIGHER (J) 40316 AND HIGHER (EK)
1171	3-725-261-01	o	SPACER, SHOULDER PAD
1172	3-182-155-01	s	WASHER, INSULATING
1173	3-182-156-01	s	BUSHING, INSULATING
1174	A-8267-202-B	o	FRAME SUB ASSY, BOTTOM

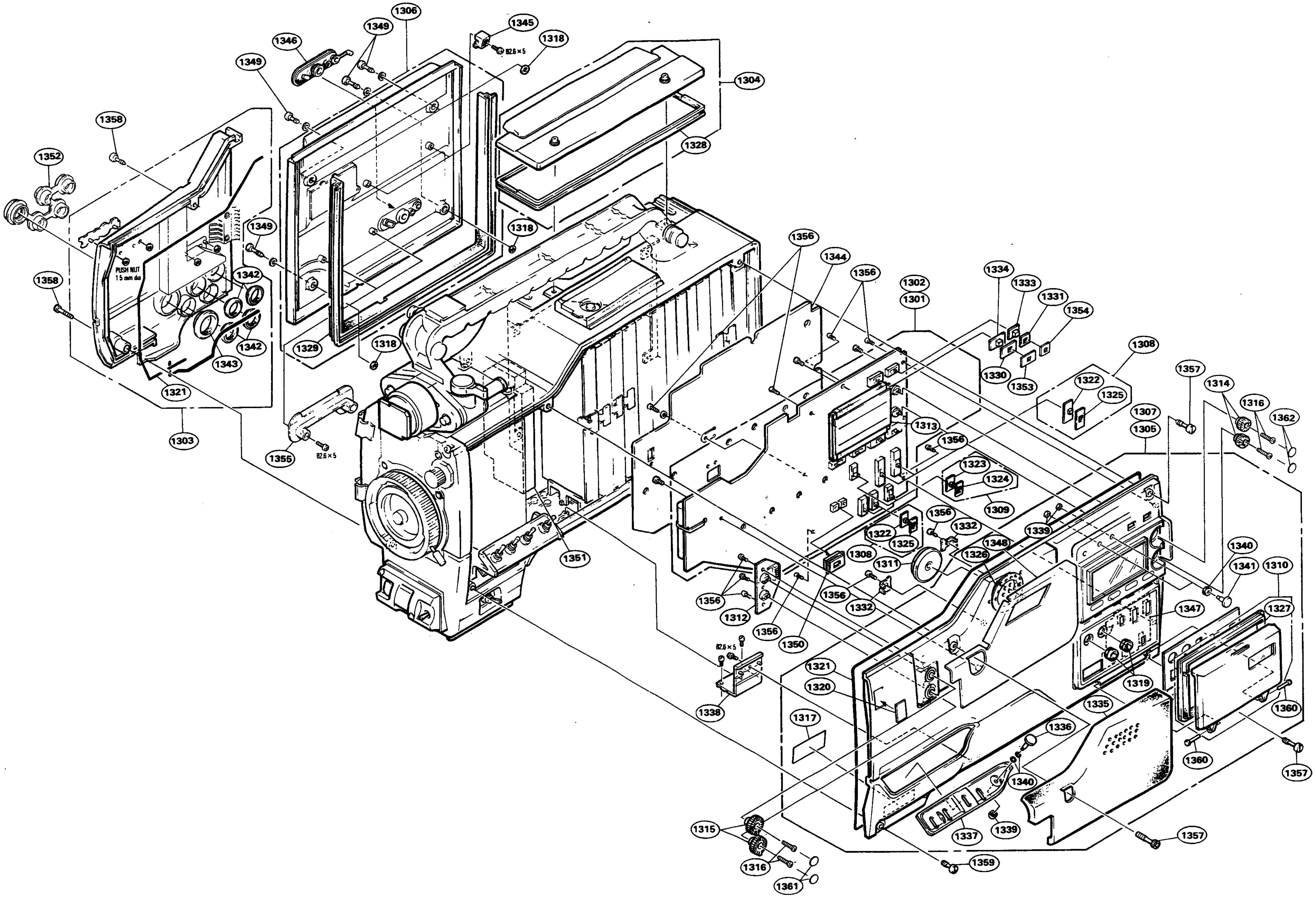
REAR FRAME

No.	Part No.	SP	Description
1201	⚠A-6723-360-A	o	MOUNTED CIRCUIT BOARD, PS-162J (J) Serial No. UP TO 30180
	⚠A-8271-735-A	o	MOUNTED CIRCUIT BOARD, PS-162B (J) Serial No. 30181 AND HIGHER
1202	⚠A-6723-368-A	o	MOUNTED CIRCUIT BOARD, PS-162 (UC, EK) Serial No. UP TO 10147 (UC) UP TO 40315 (EK)
	⚠A-8271-736-A	o	MOUNTED CIRCUIT BOARD, PS-162B (UC, EK) Serial No. 10148 AND HIGHER (UC) 40316 AND HIGHER (EK)
1203	X-3722-373-1	o	HINGE (L) ASSY, SIDE PLATE
1204	X-3722-374-6	o	FRAME SUB ASSY, REAR
1205	1-563-029-21	s	CONNECTOR, 3P FEMALE "AUDIO IN CH1/CH2" (UC, EK)
1206	1-563-030-21	o	CONNECTOR, 3P FEMALE "AUDIO IN CH1/CH2" (J)
1207	1-564-603-11	s	CONNECTOR (WITH DC SW) 4P "DC IN"
1208	1-565-072-11	s	CONNECTOR, (RF) 4P "DC OUT"
1209	1-565-764-11	s	CONNECTOR ASSY, BNC "VIDEO OUT"
1210	1-570-610-11	s	SWITCH, TOGGLE "PHANTOM POWER" (UC, EK)
1211	1-625-895-11	s	FLEXIBLE CARD WIRE, FL-57 Serial No. UP TO 10147 (UC) UP TO 30180 (J) UP TO 40315 (EK)
	1-625-895-21	s	FLEXIBLE CARD WIRE, FL-57 Serial No. 10148 AND HIGHER (UC) 30181 AND HIGHER (J) 40316 AND HIGHER (EK)
1212	3-711-715-01	o	RUBBER, SHIELD
1213	3-717-996-04	s	TERMINAL BOARD
1214	3-718-028-01	o	HOLDER, TERMINAL
1215	3-722-484-01	o	SPACER, SW
1216	3-724-723-01	s	RUBBER (BATT), DROP PROTECTION
1217	3-724-752-01	o	HOLDER (PS), PC BOARD
1218	3-725-227-01	o	BUSHING(P48) (J)
1219	3-725-239-01	s	RUBBER (P48), DROP PROTECTION (UC, EK)
1220	3-725-295-01	s	SCREW, (+) (B3)
1221	3-729-009-04	o	INSULATOR (BATT)
1222	3-729-012-01	s	SCREW (M2X5)
1224	3-729-035-01	s	COVER, REAR CONNECTOR
1225	3-729-076-01	s	SCREW (+B) (2X3)
1226	3-729-076-11	s	SCREW (+B) (2X4)
1227	3-178-798-01	o	CASE CONNECTOR Serial No. 10158 AND HIGHER (UC) 30216 AND HIGHER (J) 40361 AND HIGHER (EK)

REAR FRAME


PS2.6 × 5
PS2.6 × 5
PS2.6 × 5
PS2.6 × 5
PS2.6 × 5
1218 (only for J)
B3 × 10
LW 2mm dia
(for UC, EK)
(for UC, EK)

SIDE PLATE


B2.6×5
PUSH NUT 1.5 mm dia
B2.6×5
B2.6×5

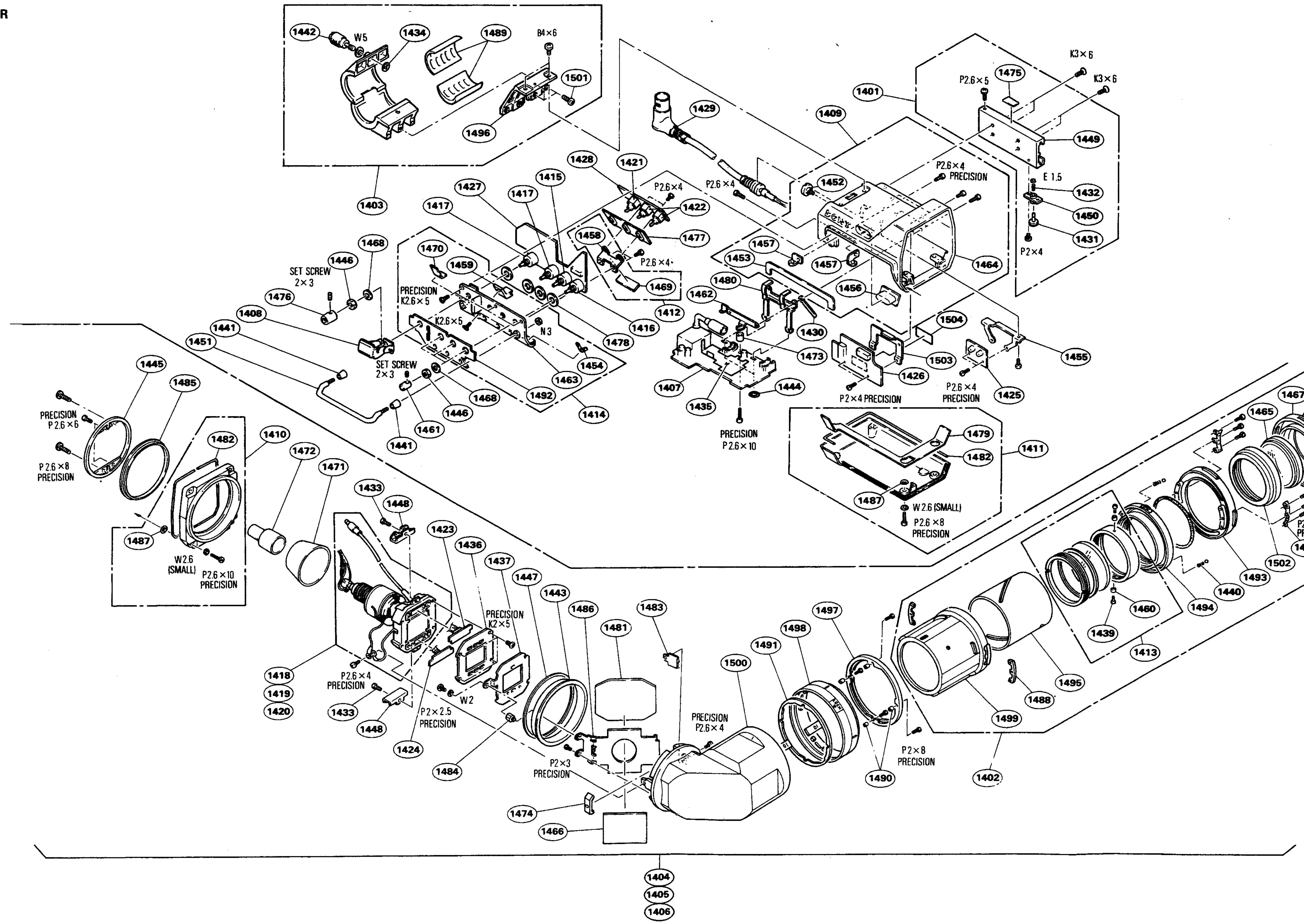
SIDE PLATE

No.	Part No.	SP	Description
1301	A-6713-368-A	o	MOUNTED CIRCUIT BOARD, TC-48A(J, UC) Serial No. UP TO 10147 (UC) UP TO 30180 (J)
	A-8271-733-A	o	MOUNTED CIRCUIT BOARD, TC-48B(J, UC) Serial No. 10148 AND HIGHER (UC) 30181 AND HIGHER (J)
1302	A-6713-372-A	o	MOUNTED CIRCUIT BOARD, TC-48AP(EK) Serial No. UP TO 40315 (EK)
	A-8271-734-A	o	MOUNTED CIRCUIT BOARD, TC-48BP(EK) Serial No. 40316 AND HIGHER (EK)
1303	X-3166-752-2	o	PLATE ASSY, SIDE, LEFT
1304	X-3722-376-6	o	PANEL ASSY, TOP
1305	X-3167-430-1	o	PLATE SUB ASSY, SIDE RIGHT (J, UC)
1306	X-3722-399-6	o	LID SUB ASSY
1307	X-3722-415-8	o	PLATE SUB ASSY (PAL), SIDE
1308	X-3722-416-1	s	KNOB (A) (ORANGE) ASSY, SW
1309	X-3722-417-1	s	KNOB (C) (ORANGE) ASSY, SW
1310	X-3722-440-2	o	DOOR ASSY, ORNAMENTAL
1311	1-503-293-00	s	SPEAKER
1312	1-625-553-13	o	PRINTED CIRCUIT BOARD, VR-70
1313	1-808-502-11	s	LCD MODULE
1314	3-171-996-02	s	KNOB (R), VR
1315	3-171-997-02	s	KNOB (F), VR
1316	3-172-754-21	s	SCREW (1.7X4)
1317	3-176-374-01	o	LABEL, SWITCH
1318	3-669-596-00	s	WASHER (2.3), STOPPER
1319	3-676-244-00	s	COVER, SWITCH
1320	3-678-607-02	o	LABEL, FILTER
1321	3-711-715-01	o	RUBBER, SHIELD
1322	3-717-900-01	s	KNOB (A) (TC), SW
1323	3-717-901-01	s	KNOB (C) (TC), SW
1324	3-717-902-21	o	PLATE, ORNAMENTAL
1325	3-717-902-31	o	PLATE, ORNAMENTAL
1326	3-724-716-02	s	SHEET, DROP PROTECTION
1327	3-724-718-03	s	RUBBER (DOOR), DROP PROTECTION
1328	3-724-721-02	s	RUBBER (TOP), DROP PROTECTION
1329	3-724-722-02	s	RUBBER (CA), DROP PROTECTION
1330	3-724-725-02	s	RUBBER (SLIDE), DROP PROTECTION
1331	3-724-725-12	s	RUBBER (SLIDE), DROP PROTECTION
1332	3-724-726-01	o	HOLDER, SPEAKER
1333	3-724-727-01	s	KNOB (LI), SW
1334	3-724-728-01	s	KNOB (DL), SW
1335	3-724-733-02	s	PAD, SIDE
1336	3-724-747-02	o	KNOB, CTDM
1337	3-724-748-03	o	PLATE, ORNAMENTAL, CAMERA SW
1338	3-724-749-02	o	HINGE (R), SIDE PLATE
1339	3-724-757-02	s	RETAINER, SW, PUSH
1340	3-724-758-02	s	RUBBER (PUSH), DROP PROTECTION
1341	3-724-759-03	s	PUSH (SW)
1342	3-724-760-01	s	RUBBER (BNC), DROP PROTECTION
1343	3-724-761-01	s	RUBBER (PB), DROP PROTECTION
1344	3-725-225-01	o	INSULATOR (TC)
1345	3-725-286-01	o	STOPPER, CASSETTE
1346	3-725-287-01	s	RUBBER, DROP PROTECTION
1347	3-725-290-03	s	RUBBER (SW), DROP PROTECTION
1348	3-725-293-03	s	TAPE (3), ADHESIVE, SIDE PAD
1349	3-725-295-11	s	SCREW, (+) (B3)
1350	3-729-010-01	s	RUBBER (VITC), DROP PROTECTION
1351	3-729-023-01	o	FILTER (MAIN)
1352	3-729-036-01	o	COVER, SIDE CONNECTOR
1353	3-729-044-01	s	SHEET, SLIDE
1354	3-729-044-11	s	SHEET, SLIDE
1355	3-729-052-02	o	BRACKET, TAPE
1356	3-729-076-01	s	SCREW (+B) (2X3)
1357	3-729-091-01	s	SCREW (M4X17.5)
1358	3-729-091-21	s	SCREW (M4X22.5)
1359	3-729-091-31	s	SCREW (M4X10)
1360	3-743-800-01	o	SHAFT, DOOR
1361	3-178-098-01	s	SHEET (VR), INSULATING Serial No. 10118 AND HIGHER (UC) 30121 AND HIGHER (J) 40242 AND HIGHER (EK)
1362	3-178-098-11	s	SHEET (VR), INSULATING Serial No. 10118 AND HIGHER (UC) 30121 AND HIGHER (J) 40242 AND HIGHER (EK)

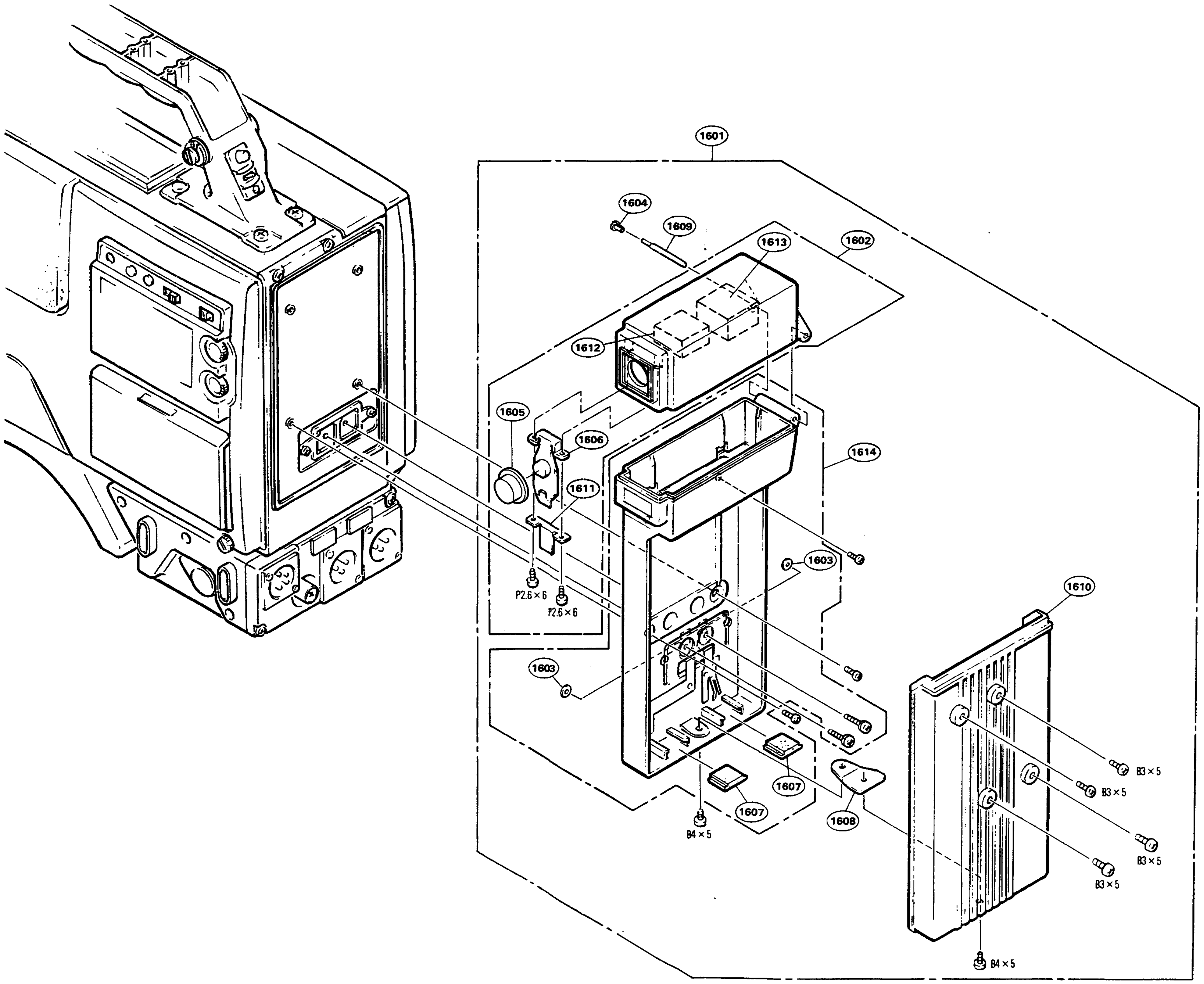
VIEWFINDER

No.	Part No.	SP	Description
1401	A-7612-320-B	o	GUIDE ASSY, VF SLIDE
1402	A-7612-389-B	s	TUBE SUB ASSY, VF
1403	A-7612-390-D	o	HOLDER ASSY, MICROPHONE
1404	△A-8260-215-A	o	VF COMPLETE ASSY (UC)
1405	△A-8260-217-A	o	VF COMPLETE ASSY (J)
1406	△A-8260-219-A	o	VF COMPLETE ASSY (EK)
1407	△A-8271-332-A	o	MOUNTED CIRCUIT BOARD, VF-50
1408	X-3166-692-1	s	GUARD ASSY, VR
1409	X-3710-050-5	o	VF (MAIN) BLOCK ASSY
1410	X-3722-366-8	o	TUBE ASSY, VF ROTARY GUIDE
1411	X-3722-368-5	o	LID ASSY, VF
1412	X-3722-426-1	o	BRACKET ASSY, SW
1413	X-3722-436-1	o	LENS ASSY
1414	X-3722-437-2	o	BRACKET ASSY (C), VR.SW
1415	1-238-290-11	s	RES, VAR, CARBON 1k "CONTRAST"
1416	1-238-293-11	s	RES, VAR, CARBON 10k "BRIGHT"
1417	1-238-296-11	s	RES, VAR, CARBON 10k "PEAKING"
1418	△1-546-092-11	s	1.5" CRT ASSY
1421	1-570-984-11	s	SWITCH, TOGGLE "ZEBRA" AUDIO IND"
1422	1-570-985-11	s	SWITCH, TOGGLE "TALLY"
1423	1-643-704-11	o	PRINTED CIRCUIT BOARD, LP-64
1424	1-643-705-11	o	PRINTED CIRCUIT BOARD, LP-65
1425	1-643-706-11	o	PRINTED CIRCUIT BOARD, LP-66
1426	1-643-707-11	o	PRINTED CIRCUIT BOARD, CN-771
1427	1-643-708-11	o	PRINTED CIRCUIT BOARD, VR-149
1428	1-643-709-11	o	PRINTED CIRCUIT BOARD, SW-562
1429	1-950-039-11	s	HARNESS (VF CABLE-2)
1430	2-277-426-01	o	CLAMP
1431	2-277-457-00	s	KNOB, STOPPER
1432	2-277-466-01	s	SPRING, COMPRESSION
1433	3-165-162-01	s	SCREW (+P2.6X5) (TYPE1)
1434	3-165-904-01	s	WASHER, SCREW STOPPER
1435	3-166-307-01	o	PLATE, SHIELD
1436	3-176-022-03	o	SPACER (B), MASK
1437	3-176-023-01	o	PLATE (339), DISPLAY
1438	3-176-414-01	o	RETAINER, RING
1439	3-335-207-01	s	SHAFT, MOTOR
1440	3-573-150-00	o	SPRING, COMPRESSION
1441	3-657-654-00	o	RING, ORNAMENTAL
1442	3-657-657-00	s	SCREW (M5)
1443	3-672-241-00	o	RING (B), SLEEVE
1444	3-672-250-00	o	RING (M2.6), O
1445	3-680-595-01	o	SUPPORT, ROTARY
1446	3-685-104-01	s	NUT (M6), CONTROL
1447	3-685-118-02	o	SPACER, RING
1448	3-685-129-01	o	SPRING (N), LEAF, VF
1449	3-710-007-02	s	GUIDE, VF SLIDE
1450	3-710-008-02	s	HOUSING, STOPPER
1451	3-716-342-02	o	GUARD, CONNECTOR
1452	3-720-946-01	o	PIN, MICROPHONE STOPPER
1453	3-720-977-01	o	PACKING (A), DROP PROTECTION
1454	3-720-978-01	s	PACKING (B), DROP PROTECTION
1455	3-722-474-05	o	BRACKET, LP
1456	3-722-475-04	o	COVER (A)
1457	3-722-476-01	o	NUT, PLATE
1458	3-722-477-01	o	BRACKET, SW
1459	3-722-481-04	o	HOLDER, PC BOARD
1460	3-722-485-01	o	ROLLER, SLIDE
1461	3-722-486-01	s	KNOB
1462	3-720-974-04	o	BRACKET (2), PC BOARD
1463	3-722-494-01	o	BRACKET, VR SW
1464	3-723-002-14	o	VF (MAIN)
1465	3-723-069-02	o	PROTECTOR, MC
1466	3-723-073-01	o	CUSHION, MIRROR
1467	3-723-079-01	s	EYE CUP
1468	3-724-744-03	o	WASHER
1469	3-724-745-01	o	SHEET (C), INSULATING
1470	3-724-746-01	o	SHEET (B), INSULATING
1471	3-725-220-02	o	TUBE (A), CRT
1472	3-725-221-04	o	TUBE (B), CRT
1473	3-725-257-01	o	BOSS
1474	3-725-258-03	o	STOPPER, ROTARY
1475	3-725-275-01	o	LABEL, LOCK
1476	3-725-277-01	s	KNOB (B)
1477	3-725-278-01	s	PACKING (SW), DROP PROTECTION
1478	3-725-279-01	s	PACKING (VR), DROP PROTECTION
1479	3-725-280-01	s	PACKING (A), DROP PROTECTION
1480	3-725-282-03	o	HINGE, PC BOARD
1481	3-729-099-01	o	MIRROR
1482	3-729-701-21	s	RUBBER (CARBON), CONDUCTIVE
1483	3-734-739-01	o	SHEET, INSULATING, MASK
1484	3-734-740-01	o	SUPPORT
1485	3-734-760-01	o	RING
1486	3-742-001-02	o	HOLDER (2), MIRROR
1487	3-742-004-01	s	RING, NYLON
1488	3-742-038-01	o	NUT (2), PLATE
1489	3-742-039-01	s	CUSHION, MICROPHONE
1490	3-742-045-01	o	TUBE
1491	3-742-046-01	o	BRACKET, SAFETY
1492	3-742-051-01	o	LABEL
1493	3-742-052-01	o	HOLDER, EYE CUP
1494	3-742-053-01	o	RING
1495	3-742-054-01	o	TUBE
1496	3-742-057-03	o	HOLDER (BASE), MICROPHONE
1497	3-742-058-01	o	RING, FIXED
1498	3-742-059-01	o	RING, HOLD
1499	3-742-060-01	o	HOLDER, RING
1500	3-742-062-01	o	TUBE (2), VF
1501	3-742-074-01	s	SCREW (3X6)
1502	3-742-075-01	o	HOLDER, FILTER
1503	3-742-205-02	o	BRACKET, CN
1504	3-177-365-01	o	SHEET (CN), INSULATING

VIEWFINDER


W5
B4×6
1501
K3×6
P2.6×5
K3×6
P2.6×4
PRECISION
E 1.5
P2×4
P2.6×4
P2.6×4
P2.6×4
PRECISION
P2.6×10
1504
1503
P2×4 PRECISION
P2.6×4
PRECISION
SET SCREW
2×3
PRECISION
K2.6×5
K2.6×5
N3
SET SCREW
2×3
PRECISION
P2.6×6
P2.6×8
PRECISION
W2.6
(SMALL)
P2.6×10
PRECISION
W2.6 (SMALL)
P2.6×8
PRECISION
P2×10
PRECISION
1502
PRECISION
K2×5
1500
P2.6×4
PRECISION
P2×2.5
PRECISION
W2
PRECISION
P2.6×4
P2×3
PRECISION
P2×8
PRECISION

BATTERY CASE


1601
1604
1609
1613
1602
1612
1605
1606
1611
1614
1603
P2.6×6
P2.6×6
1610
1603
B3×5
B3×5
B3×5
B3×5
1607
1607
1608
B4×5
B4×5

BATTERY CASE

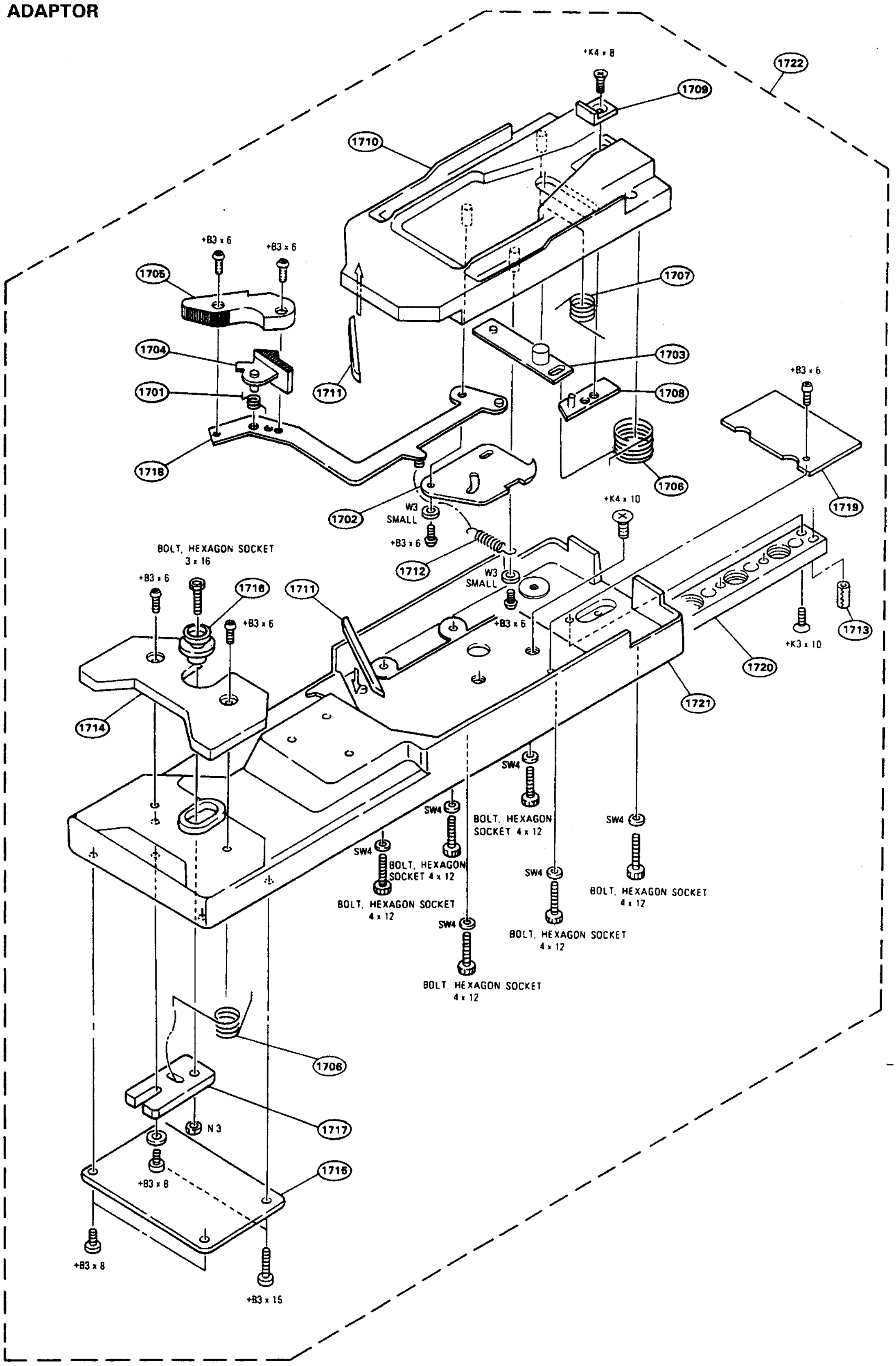
No.	Part No.	SP	Description
1601	A-6703-651-C	s	CASE ASSY, BATTERY
1602	X-3717-701-3	o	COVER ASSY, TOP, BATTERY
1603	3-669-596-00	s	WASHER (2.3), STOPPER
1604	3-703-075-00	s	CAP 2, SHAFT
1605	3-717-702-01	s	PUSH BUTTON
1606	3-717-703-03	s	HOOK
1607	3-717-707-02	o	CUSHION (2)
1608	3-717-708-01	o	RETAINER, CASE
1609	3-717-709-01	o	SHAFT, LID
1610	3-718-040-01	o	COVER (1), BATTERY CASE
1611	3-718-172-01	o	RETAINER, HOOK
1612	3-729-720-01	o	CUSHION (LEFT)
1613	3-729-721-01	o	CUSHION (RIGHT)
1614	X-3717-742-5	o	CASE SUB ASSY, BATTERY

TRIPOD ADAPTOR

TRIPOD ADAPTOR

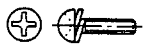
No.	Part No.	SP	Description
1701	2-381-631-01	o	SPRING
1702	2-381-632-01	o	ARM, LOCKER
1703	2-381-633-01	o	SOLENOID
1704	2-381-635-01	o	LEVER, LOCKER
1705	2-381-636-01	o	KNOB
1706	2-381-637-01	o	SPRING
1707	2-381-638-01	o	SPRING
1708	2-381-640-01	o	DOG
1709	2-381-641-01	o	COLLAR
1710	2-381-642-02	o	MOUNT
1711	2-381-648-01	o	INSULATOR, KNOB
1712	2-381-652-01	o	SPRING, TENSHION
1713	2-381-654-01	s	PIN, SPRING
1714	3-678-704-00	o	SPACER
1715	3-720-906-01	o	LID (S), REAR
1716	3-720-907-01	o	PIN (S), REAR
1717	3-720-908-01	o	TABLE (S), PIN, REAR
1718	3-720-909-01	o	KNOB, CRANK
1719	3-720-910-01	o	SHEET, SLIDE
1720	3-720-911-01	o	BASE, TRIPOD FITTING SCREW
1721	3-720-912-01	o	FRAME (S)
1722	OPTONAL ACCESSORY: TRIPOD ADAPTOR VCT-14		

TRIPOD ADAPTOR


+K4 x 8
1722
1709
1710
+B3 x 6
+B3 x 6
1705
1707
1704
1703
1701
1711
1708
+B3 x 6
1718
1706
1719
1702
W3
SMALL
+K4 x 10
+B3 x 6
BOLT, HEXAGON SOCKET
3 x 16
1712
W3
SMALL
+B3 x 6
1716
1711
+B3 x 6
+B3 x 6
1713
+K3 x 10
1720
1721
1714
SW4
SW4
BOLT, HEXAGON
SOCKET 4 x 12
SW4
SW4
BOLT, HEXAGON
SOCKET 4 x 12
SW4
BOLT, HEXAGON SOCKET
4 x 12
BOLT, HEXAGON SOCKET
4 x 12
SW4
BOLT, HEXAGON SOCKET
4 x 12
BOLT, HEXAGON SOCKET
4 x 12
1706
N3
1717
1715
+B3 x 8
+B3 x 8
+B3 x 15

SCREWS

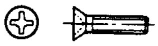
+PS
Czn-N



7-628-□□□-□□

Size	Parts No.
2 × 4	255-20
× 5	283-00
× 6	255-40
× 8	255-50
× 10	283-10
× 12	283-70
2.6 × 4	284-00
× 5	284-10
× 6	284-20
× 8	284-30
× 10	284-40
× 12	259-70
× 14	259-80
× 16	260-00
× 20	260-20

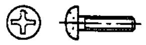
+K
Cr-N



7-682-□□□-□□

SIZE	Parts No.
3 x 4	245-04
x 5	246-04
x 6	247-04
x 8	248-04
x 10	249-04
x 12	250-04
x 14	251-04
x 16	252-04
x 20	253-04
4 x 6	260-04
x 8	261-04
x 10	262-04
x 12	263-04
x 14	264-04
x 16	265-04
x 20	266-04

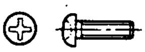
+B
Bzn-N



7-621-□□□-□□

Size	Parts No.
2 × 3	772-00
× 4	772-10
× 5	772-20
× 6	772-30
× 8	772-40
× 10	772-50
× 12	772-60
× 14	772-70
× 16	772-80
× 20	==
2.6 × 3	775-00
× 4	775-10
× 5	775-20
× 6	773-95
× 8	775-40
× 10	775-50
× 12	775-60
× 14	775-70
× 16	775-80
× 20	775-90

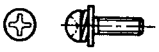
+B
Cr-N



7-621-□□□-□□

SIZE	Parts No.
2 x 3	772-08
x 4	772-18
x 5	771-06
x 6	772-38
x 8	772-48
x 10	772-58
x 12	772-68
x 14	772-78
x 16	772-88
x 20	–
2.6 x 3	775-08
x 4	773-86
x 5	770-87
x 6	770-67
x 8	770-99
x 10	773-87
x 12	775-68
x 14	775-78
x 16	775-88
x 20	773-91

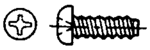
+PSW
Czn-N



7-682-□□□-□□

SIZE	Parts No.
3 x 6	947-01
x 8	948-01
x 10	949-01
x 12	950-01
x 14	951-01
x 16	952-01
x 20	953-01
x 25	954-01
x 30	955-01
x 35	956-01
x 40	957-01
4 x 8	961-01
x 10	962-01
x 12	963-01
x 14	964-01
x 16	965-01
x 20	966-01
x 25	967-01
x 30	968-01
x 35	969-01
x 40	970-01

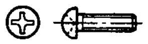
+P
BZn-N4



7-685-□□□-□□

SIZE	Parts No.
2 x 4	102-79
x 5	103-79
x 6	104-79
x 8	105-79
x 10	106-79
x 12	107-79
2.6 x 4	131-79
x 5	132-79
x 6	133-79
x 8	134-79
x 10	135-79
x 12	136-79
x 14	137-79
x 16	138-79
3 x 5	144-79
x 6	645-79
x 8	646-79
x 10	647-79
x 12	648-79
x 14	649-79
x 16	650-79
x 18	–
x 20	651-79
x 25	152-19
x 30	153-19
x 35	154-19
x 40	155-19
4 x 6	158-19
x 8	659-79
x 10	660-79
x 12	661-79
x 14	662-79
x 16	663-79
x 20	664-79
x 25	665-79
x 30	666-79
x 35	167-79

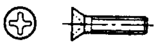
+P
Czn-N



7-621-□□□-□□

SIZE	Parts No.
2 x 3	255-15
x 4	255-25
x 5	255-35
x 6	255-45
x 8	255-55
x 10	255-65
x 12	255-75
x 14	255-85
x 16	256-05
x 20	256-25
2.3 x 5	257-35
x 6	257-45
x 8	257-55
x 10	257-65
x 12	257-75
x 14	257-85
x 16	258-05
x 20	258-25
2.6 x 3	259-15
x 4	259-25
x 5	259-35
x 6	259-45
x 8	259-55
x 10	259-65
x 12	259-75
x 14	259-85
x 16	260-05
x 20	260-25

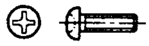
+K
Bzn-N



7-682-□□□-□□

SIZE	Parts No.
3 x 4	245-09
x 5	246-09
x 6	247-09
x 8	248-09
x 10	249-09
x 12	250-09
x 14	251-09
x 16	252-09
x 20	253-09
4 x 6	260-09
x 8	261-09
x 10	262-09
x 12	263-09
x 14	264-09
x 16	265-09
x 20	266-09
5 x 8	274-09
x 10	275-09
x 12	276-09
x 14	277-09
x 16	278-09
x 20	279-09
x 25	280-09
x 30	281-09
x 35	282-09
x 40	283-09
x 45	284-09
x 50	285-09

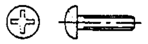
+B
Bzn-N



7-682-□□□-□□

SIZE	Parts No.
3 x 3	544-09
x 4	545-09
x 5	546-09
x 6	547-09
x 8	548-09
x 10	549-09
x 12	550-09
x 14	551-09
x 16	552-09
x 20	553-09
x 30	555-09
4 x 4	558-09
x 5	559-09
x 6	560-09
x 8	561-09
x 10	562-09
x 12	563-09
x 14	564-09
x 16	565-09
x 20	566-09
5 x 8	574-09
x 10	575-09
x 12	576-09
x 14	577-09
x 16	578-09
x 20	579-09

+B
Cr-N



7-682-□□□-□□

Size	Parts No.
3 × 3	544-04
× 4	545-04
× 5	546-04
× 6	547-04
× 8	548-04
× 10	549-04
× 12	550-04
× 14	551-04
× 16	552-04
× 20	553-04
4 × 4	558-04
× 5	559-04
× 6	560-04
× 8	561-04
× 10	562-04
× 12	563-04
× 14	564-04
× 16	565-04
× 20	566-04
× 25	567-04
× 30	568-04
× 35	569-04
× 40	570-04
× 45	571-04
× 50	572-04
5 × 8	574-04
× 10	575-04
× 12	576-04
× 14	577-04
× 16	578-04
× 20	579-04
× 25	580-04
× 30	581-04

PRECISION +K
Cr-N

7-627-□□□-□□

SIZE	Parts No.
1.7 x 1.8	–
x 2	–
x 2.2	–
x 2.5	–
x 2.8	–
x 3	–
x 3.5	–
x 4	–
x 4.5	–
x 5	–
x 5.5	–
x 6	–
2 x 2	452-07
x 2.2	452-87
x 2.5	–
x 2.8	–
x 3	452-17
x 3.5	–
x 4	452-27
x 4.5	–
x 5	–
x 5.5	–
x 6	–
x 7	452-67
x 8	–
2.6 x 3.5	–
x 4	454-17
x 4.5	–
x 5	454-37
x 5.5	–
x 6	–
x 7	–
x 8	–

PRECISION +K
Bzn-N

7-627-□□□-□□

SIZE	Parts No.
1.7 x 1.8	–
x 2	450-28
x 2.2	–
x 2.5	450-48
x 2.8	–
x 3	450-58
x 3.5	–
x 4	450-78
x 4.5	–
x 5	450-98
x 5.5	–
x 6	–
2 x 2	452-08
x 2.2	452-88
x 2.5	452-48
x 2.8	–
x 3	452-18
x 3.5	452-98
x 4	452-28
x 4.5	–
x 5	452-38
x 5.5	–
x 6	452-58
x 7	452-68
x 8	452-78
2.6 x 3.5	–
x 4	–
x 4.5	454-28
x 5	454-38
x 5.5	–
x 6	–
x 7	–
x 8	–

PRECISION +P
Bzn-N

7-627-□□□-□□

Size	Parts No.
1.7 × 1.6	552-18
× 1.8	–
× 2	552-28
× 2.2	–
× 2.5	552-08
× 2.8	–
× 3	552-38
× 3.5	552-78
× 4	552-48
× 4.5	–
× 5	552-58
× 5.5	–
× 6	552-68
× 8	552-98
2× 1.8	554-38
× 2	553-18
× 2.2	–
× 2.5	553-28
× 2.8	554-58
× 3	553-38
× 3.5	554-18
× 4	553-48
× 4.5	553-58
× 5	554-28
× 5.5	554-68
× 6	553-68
× 7	553-88
× 8	553-98
× 9	554-48
× 10	553-78
2.6× 2.8	556-08
× 3	–
× 3.5	556-28
× 4	556-38
× 4.5	556-48
× 5	556-58
× 5.5	–
× 6	556-78
× 7	–
× 8	556-98
× 9	–
× 10	557-48

PRECISION +P
Cr-N

7-627-□□□-□□

Size	Parts No.
1.7 × 1.6	–
× 1.8	–
× 2	552-27
× 2.2	552-87
× 2.5	552-07
× 2.8	–
× 3	552-37
× 3.5	–
× 4	552-47
× 4.5	552-67
× 5	552-57
× 5.5	557-07
× 6	552-77
× 8	552-97
2× 1.8	554-37
× 2	553-17
× 2.2	554-07
× 2.5	553-27
× 2.8	–
× 3	553-37
× 3.5	554-17
× 4	553-47
× 4.5	553-57
× 5	553-67
× 5.5	–
× 6	554-27
× 7	553-87
× 8	553-97
× 10	553-77
2.6× 2.8	556-07
× 3	–
× 3.5	–
× 4	556-37
× 4.5	–
× 5	556-57
× 5.5	–
× 6	556-77
× 7	–
× 8	556-97
× 9	–
× 10	557-47

BOLT, HEXAGON
SOCKET
SNCM6 BZn-N4

7-683-□□□-□□

SIZE	Parts No.
3 x 4	401-04
3 x 5	402-04
3 x 6	403-04
3 x 8	404-04
3 x 10	405-04
3 x 12	406-04
3 x 14	407-04
3 x 16	408-04
3 x 20	410-04
4 x 5	417-04
4 x 6	418-04
4 x 8	419-04
4 x 10	420-04
4 x 12	421-04
4 x 14	422-04
4 x 16	423-04
4 x 20	425-04
4 x 25	427-04
5 x 8	434-04
5 x 10	435-04
5 x 12	436-04
5 x 14	437-04
5 x 16	438-04
5 x 20	440-04
5 x 25	442-04
5 x 30	444-04
5 x 50	447-04
6 x 10	452-04
6 x 12	453-04
6 x 14	454-04
6 x 16	455-04
6 x 20	457-04
6 x 25	459-04
6 x 30	461-04
6 x 35	463-04
6 x 40	465-04
6 x 45	466-04
6 x 55	468-04
8 x 12	470-04
8 x 14	471-04
8 x 16	472-04
8 x 20	473-04
8 x 25	474-04
8 x 30	475-04
8 x 35	476-04
8 x 40	477-04
8 x 45	478-04
8 x 50	479-04

HEXAGON SET SCREW
(FLAT)
SNCM6-PD

7-621-□□□-□□

SIZE	Parts No.
2 x 2.5	731-08
2 x 3	732-08
2 x 4	733-08
2 x 5	–
2 x 6	–
2.6 x 3	737-08
2.6 x 4	738-08
2.6 x 5	739-08
2.6 x 6	740-08

13-3. ELECTRICAL PARTS LIST

CAPACITOR, CHIP CERAMIC

Part No.	SP	Description
1-163-083-00	s	P, CHIP CERAMIC 1pF +-0.25pF 50V
1-163-085-00	s	P, CHIP CERAMIC 2pF +-0.25pF 50V
1-163-087-00	s	P, CHIP CERAMIC 4pF +-0.25pF 50V
1-163-089-00	s	P, CHIP CERAMIC 6pF +-0.5pF 50V
1-163-091-00	s	P, CHIP CERAMIC 8pF +-0.5pF 50V
1-163-093-00	s	P, CHIP CERAMIC 10pF 5% 50V
1-163-097-00	s	P, CHIP CERAMIC 15pF 5% 50V
1-163-101-00	s	P, CHIP CERAMIC 22pF 5% 50V
1-163-105-00	s	P, CHIP CERAMIC 33pF 5% 50V
1-163-109-00	s	P, CHIP CERAMIC 47pF 5% 50V
1-163-113-00	s	P, CHIP CERAMIC 68pF 5% 50V
1-163-117-00	s	P, CHIP CERAMIC 100pF 5% 50V
1-163-121-00	s	P, CHIP CERAMIC 150pF 5% 50V
1-163-125-00	s	P, CHIP CERAMIC 220pF 5% 50V
1-163-129-00	s	P, CHIP CERAMIC 330pF 5% 50V
1-163-133-00	s	P, CHIP CERAMIC 470pF 5% 50V
1-163-137-00	s	P, CHIP CERAMIC 680pF 5% 50V
1-163-141-00	s	P, CHIP CERAMIC 1000pF 5% 50V
1-163-145-00	s	P, CHIP CERAMIC 1500pF 10% 50V
1-164-161-11	s	P, CHIP CERAMIC 2200pF 10% 100V
1-164-182-11	s	P, CHIP CERAMIC 3300pF 10% 100V
1-163-017-00	s	P, CHIP CERAMIC 4700pF 10% 50V
1-163-019-00	s	P, CHIP CERAMIC 6800pF 10% 50V
1-164-232-11	s	P, CHIP CERAMIC 0.01 20% 100V
1-163-023-00	s	P, CHIP CERAMIC 0.015 10% 50V
1-163-034-00	s	P, CHIP CERAMIC 0.033 50V
1-163-035-00	s	P, CHIP CERAMIC 0.047 50V
1-163-036-00	s	P, CHIP CERAMIC 0.068 50V
1-163-038-00	s	P, CHIP CERAMIC 0.1 50V

CAPACITOR, CHIP TANTALUM

Part No.	SP	Description
1-135-070-00	s	P, CHIP TANTALUM 0.1 10% 35V
1-135-071-21	s	P, CHIP TANTALUM 0.15 10% 35V
1-135-072-21	s	P, CHIP TANTALUM 0.22 10% 35V
1-135-073-00	s	P, CHIP TANTALUM 0.33 10% 35V
1-135-145-11	s	P, CHIP TANTALUM 0.47 20% 35V
1-135-074-21	s	P, CHIP TANTALUM 0.47 10% 35V
1-135-087-21	s	P, CHIP TANTALUM 0.68 10% 20V
1-135-075-21	s	P, CHIP TANTALUM 0.68 10% 35V
1-135-091-00	s	P, CHIP TANTALUM 1.0 10% 16V
1-135-076-21	s	P, CHIP TANTALUM 1.0 10% 35V
1-135-152-21	s	P, CHIP TANTALUM 1.5 10% 35V
1-135-077-21	s	P, CHIP TANTALUM 1.5 10% 35V
1-135-153-21	s	P, CHIP TANTALUM 2.2 10% 25V
1-135-078-21	s	P, CHIP TANTALUM 2.2 10% 35V
1-135-092-21	s	P, CHIP TANTALUM 3.3 10% 16V
1-135-079-21	s	P, CHIP TANTALUM 3.3 10% 35V
1-135-155-21	s	P, CHIP TANTALUM 4.7 10% 16V
1-135-085-21	s	P, CHIP TANTALUM 4.7 10% 25V
1-135-156-21	s	P, CHIP TANTALUM 6.8 10% 10V
1-135-089-21	s	P, CHIP TANTALUM 6.8 10% 20V
1-135-159-21	s	P, CHIP TANTALUM 10 10% 20V
1-135-097-21	s	P, CHIP TANTALUM 15 10% 10V
1-135-161-21	s	P, CHIP TANTALUM 22 10% 10V
1-135-166-21	s	P, CHIP TANTALUM 47 10% 10V

RESISTOR, CHIP

Part No.	SP	Description
1-216-295-00	s	S, CHIP 0 5% 1/10W
1-216-298-00	s	S, CHIP 2.2 5% 1/10W
1-216-302-00	s	S, CHIP 2.7 5% 1/10W
1-216-304-11	s	S, CHIP 3.3 5% 1/10W
1-216-306-11	s	S, CHIP 3.9 5% 1/10W
1-216-308-00	s	S, CHIP 4.7 5% 1/10W
1-216-309-00	s	S, CHIP 5.6 5% 1/10W
1-216-311-00	s	S, CHIP 6.8 5% 1/10W
1-216-313-00	s	S, CHIP 8.2 5% 1/10W
1-216-001-00	s	S, CHIP 10 5% 1/10W
1-216-003-11	s	S, CHIP 12 5% 1/10W
1-216-005-00	s	S, CHIP 15 5% 1/10W
1-216-007-00	s	S, CHIP 18 5% 1/10W
1-216-009-00	s	S, CHIP 22 5% 1/10W
1-216-011-00	s	S, CHIP 27 5% 1/10W
1-216-013-00	s	S, CHIP 33 5% 1/10W
1-216-015-00	s	S, CHIP 39 5% 1/10W
1-216-017-00	s	S, CHIP 47 5% 1/10W
1-216-019-00	s	S, CHIP 56 5% 1/10W
1-216-021-00	s	S, CHIP 68 5% 1/10W
1-216-023-00	s	S, CHIP 82 5% 1/10W
1-216-025-00	s	S, CHIP 100 5% 1/10W
1-216-027-00	s	S, CHIP 120 5% 1/10W
1-216-029-00	s	S, CHIP 150 5% 1/10W
1-216-031-00	s	S, CHIP 180 5% 1/10W
1-216-033-00	s	S, CHIP 220 5% 1/10W
1-216-035-00	s	S, CHIP 270 5% 1/10W
1-216-037-00	s	S, CHIP 330 5% 1/10W
1-216-039-00	s	S, CHIP 390 5% 1/10W
1-216-041-00	s	S, CHIP 470 5% 1/10W
1-216-043-00	s	S, CHIP 560 5% 1/10W
1-216-045-00	s	S, CHIP 680 5% 1/10W
1-216-047-00	s	S, CHIP 820 5% 1/10W
1-216-049-00	s	S, CHIP 1k 5% 1/10W
1-216-051-00	s	S, CHIP 1.2k 5% 1/10W
1-216-053-00	s	S, CHIP 1.5k 5% 1/10W
1-216-055-00	s	S, CHIP 1.8k 5% 1/10W
1-216-057-00	s	S, CHIP 2.2k 5% 1/10W
1-216-059-00	s	S, CHIP 2.7k 5% 1/10W
1-216-061-00	s	S, CHIP 3.3k 5% 1/10W
1-216-063-00	s	S, CHIP 3.9k 5% 1/10W
1-216-065-00	s	S, CHIP 4.7k 5% 1/10W
1-216-067-00	s	S, CHIP 5.6k 5% 1/10W
1-216-069-00	s	S, CHIP 6.8k 5% 1/10W
1-216-071-00	s	S, CHIP 8.2k 5% 1/10W
1-216-073-00	s	S, CHIP 10k 5% 1/10W
1-216-075-00	s	S, CHIP 12k 5% 1/10W
1-216-077-00	s	S, CHIP 15k 5% 1/10W
1-216-079-00	s	S, CHIP 18k 5% 1/10W
1-216-081-00	s	S, CHIP 22k 5% 1/10W
1-216-083-00	s	S, CHIP 27k 5% 1/10W
1-216-085-00	s	S, CHIP 33k 5% 1/10W
1-216-748-11	s	S, CHIP 39k 5% 1/10W
1-216-089-00	s	S, CHIP 47k 5% 1/10W
1-216-091-00	s	S, CHIP 56k 5% 1/10W
1-216-093-00	s	S, CHIP 68k 5% 1/10W
1-216-095-00	s	S, CHIP 82k 5% 1/10W
1-216-097-00	s	S, CHIP 100k 5% 1/10W
1-216-099-00	s	S, CHIP 120k 5% 1/10W
1-216-101-00	s	S, CHIP 150k 5% 1/10W
1-216-103-00	s	S, CHIP 180k 5% 1/10W
1-216-105-00	s	S, CHIP 220k 5% 1/10W
1-216-107-00	s	S, CHIP 270k 5% 1/10W
1-216-109-00	s	S, CHIP 330k 5% 1/10W
1-216-111-00	s	S, CHIP 390k 5% 1/10W
1-216-113-00	s	S, CHIP 470k 5% 1/10W
1-216-115-00	s	S, CHIP 560k 5% 1/10W
1-216-117-00	s	S, CHIP 680k 5% 1/10W
1-216-119-00	s	S, CHIP 820k 5% 1/10W
1-216-121-00	s	S, CHIP 1.0M 5% 1/10W
1-216-123-11	s	S, CHIP 1.2M 5% 1/10W
1-216-125-00	s	S, CHIP 1.5M 5% 1/10W
1-216-127-11	s	S, CHIP 1.8M 5% 1/10W
1-216-129-00	s	S, CHIP 2.2M 5% 1/10W
1-216-131-11	s	S, CHIP 2.7M 5% 1/10W
1-216-133-00	s	S, CHIP 3.3M 5% 1/10W

AMF-6P BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6713-350-A	o	MOUNTED CIRCUIT BOARD, AFM 6P
1pc	3-724-705-01	o	PLATE (AFM-6), ORNAMENTAL
1pc	3-724-753-01	o	RING
1pc	7-688-001-12	s	W 2, MIDDLE
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
C1	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C2	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C3	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C4	1-163-227-11	s	CERAMIC 10PF 5% 50V
C5	1-163-239-11	s	CERAMIC 33PF 5% 50V
C6	1-163-235-11	s	CERAMIC 22PF 5% 50V
C7	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C8	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C11	1-163-239-11	s	CERAMIC 33PF 5% 50V
C16	1-163-239-11	s	CERAMIC 33PF 5% 50V
C17	1-163-239-11	s	CERAMIC 33PF 5% 50V
C18	1-163-235-11	s	CERAMIC 22PF 5% 50V
C101	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C105	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C106	1-163-235-11	s	CERAMIC 22PF 5% 50V
C108	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C110	1-163-243-11	s	CERAMIC 47PF 5% 50V
C115	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C117	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C120	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C201	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C401	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C402	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C403	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C405	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C501	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C502	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C503	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C504	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C529	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C530	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C543	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C544	1-135-136-21	s	TANTALUM 6.8uF 10% 35V
C545	1-164-148-11	s	CERAMIC 0.0082uF 5% 50V
C546	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C547	1-163-222-11	s	CERAMIC 5PF 0.25PF 50V
C548	1-164-147-11	s	CERAMIC 0.0047uF 5% 50V
C549	1-136-160-00	s	FILM 0.039uF 5% 50V
C552	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C553	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C554	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C558	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C559	1-135-136-21	s	TANTALUM 6.8uF 10% 35V
C560	1-164-148-11	s	CERAMIC 0.0082uF 5% 50V
C561	1-163-222-11	s	CERAMIC 5PF 0.25PF 50V
C562	1-164-147-11	s	CERAMIC 0.0047uF 5% 50V
C565	1-136-160-00	s	FILM 0.039uF 5% 50V
C567	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C568	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-566-388-11	s	CONNECTOR, 8P, MALE
CNJ2	1-565-413-11	o	PLUG, SHORTING

(AMF-6P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
CV1	1-141-369-52	s	CAP, CHIP TRIMMER
CV2	1-141-369-52	s	CAP, CHIP TRIMMER
CV3	1-141-369-52	s	CAP, CHIP TRIMMER
CV4	1-141-369-52	s	CAP, CHIP TRIMMER
CV101	1-141-369-52	s	CAP, CHIP TRIMMER
CV102	1-141-369-52	s	CAP, CHIP TRIMMER
CV103	1-141-369-52	s	CAP, CHIP TRIMMER
CV104	1-141-369-52	s	CAP, CHIP TRIMMER
D201	8-719-800-76	s	DIODE 1SS226
D402	8-719-800-76	s	DIODE 1SS226
D501	8-719-800-76	s	DIODE 1SS226
D502	8-719-800-76	s	DIODE 1SS226
D503	8-719-800-76	s	DIODE 1SS226
D504	8-719-800-76	s	DIODE 1SS226
D505	8-719-400-18	s	DIODE MA152WK
D506	8-719-104-34	s	DIODE 1S2836
FL1	1-236-019-11	s	FILTER, LOW-PASS
IC1	8-741-152-44	s	IC SBX1524-52
IC2	8-759-209-15	s	IC TC4SU69F
IC3	8-759-209-15	s	IC TC4SU69F
IC4	8-759-209-15	s	IC TC4SU69F
IC401	8-759-100-94	s	IC UPC358G2
IC501	1-236-003-11	s	FILTER, LOW-PASS
IC502	8-752-009-90	s	IC CX20099
IC503	8-759-403-92	s	IC AN6391NS
IC504	8-759-403-92	s	IC AN6391NS
IC505	8-759-209-15	s	IC TC4SU69F
IC506	8-759-700-38	s	IC NJM4559M
IC507	8-759-700-38	s	IC NJM4559M
IC601	8-759-100-96	s	IC UPC4558G2
L1	1-410-393-11	s	INDUCTOR CHIP 100uH
L2	1-410-393-11	s	INDUCTOR CHIP 100uH
L3	1-410-658-31	s	INDUCTOR CHIP 220uH
L4	1-410-381-11	s	INDUCTOR CHIP 10uH
L5	1 410 389 31	s	INDUCTOR CHIP 47uH
L6	1-408-779-31	s	INDUCTOR CHIP 15uH
L101	1-410-393-11	s	INDUCTOR CHIP 100uH
L102	1-410-393-11	s	INDUCTOR CHIP 100uH
Q1	8-729-905-12	s	TRANSISTOR DTA144EU
Q2	8-729-905-18	s	TRANSISTOR DTC144EU
Q3	8-729-905-18	s	TRANSISTOR DTC144EU
Q4	8-729-117-32	s	TRANSISTOR 2SC4177
Q5	8-729-117-32	s	TRANSISTOR 2SC4177
Q6	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q7	8-729-117-72	s	TRANSISTOR 2SC4178
Q8	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q9	8-729-117-72	s	TRANSISTOR 2SC4178
Q101	8-729-117-72	s	TRANSISTOR 2SC4178
Q102	8-729-905-12	s	TRANSISTOR DTA144EU
Q103	8-729-117-72	s	TRANSISTOR 2SC4178
Q104	8-729-117-72	s	TRANSISTOR 2SC4178
Q105	8-729-117-72	s	TRANSISTOR 2SC4178
Q106	8-729-117-72	s	TRANSISTOR 2SC4178
Q107	8-729-117-72	s	TRANSISTOR 2SC4178
Q108	8-729-117-72	s	TRANSISTOR 2SC4178
Q109	8-729-109-44	s	TRANSISTOR 2SK94
Q110	8-729-109-44	s	TRANSISTOR 2SK94

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(AMF-6P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q111	8-729-109-44	s	TRANSISTOR 2SK94
Q112	8-729-109-44	s	TRANSISTOR 2SK94
Q113	8-729-117-72	s	TRANSISTOR 2SC4178
Q115	8-729-905-12	s	TRANSISTOR DTA144EU
Q121	8-729-109-44	s	TRANSISTOR 2SK94
Q122	8-729-109-44	s	TRANSISTOR 2SK94
Q123	8-729-109-44	s	TRANSISTOR 2SK94
Q124	8-729-109-44	s	TRANSISTOR 2SK94
Q155	8-729-117-32	s	TRANSISTOR 2SC4177
Q156	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q157	8-729-117-32	s	TRANSISTOR 2SC4177
Q158	8-729-109-44	s	TRANSISTOR 2SK94
Q159	8-729-109-44	s	TRANSISTOR 2SK94
Q160	8-729-109-44	s	TRANSISTOR 2SK94
Q161	8-729-109-44	s	TRANSISTOR 2SK94
Q170	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q201	8-729-106-68	s	TRANSISTOR 2SC1615A-GP
Q202	8-729-106-68	s	TRANSISTOR 2SC1615A-GP
Q401	8-729-807-50	s	TRANSISTOR 2SD1623
Q402	8-729-905-18	s	TRANSISTOR DTC144EU
Q501	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q502	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q503	8-729-209-07	s	TRANSISTOR 2SC4213-B
R1	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R2	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R3	1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
R4	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R5	1-216-828-11	s	METAL, CHIP 3.9K 5% 1/16W
R6	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R7	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R8	1-216-680-11	s	METAL, CHIP 16K 0.5% 1/10W
R10	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R11	1-216-828-11	s	METAL, CHIP 3.9K 5% 1/16W
R12	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R13	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R14	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R15	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R16	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R17	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R18	1-216-824-11	s	METAL, CHIP 1.8K 5% 1/16W
R19	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R20	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R21	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R22	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R23	1-216-838-11	s	METAL, CHIP 27K 5% 1/16W
R24	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R25	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R26	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R27	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R28	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R29	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R32	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R33	1-216-818-11	s	METAL, CHIP 560 5% 1/16W
R101	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R102	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R103	1-218-288-11	s	METAL, CHIP 300 5% 1/16W
R104	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R105	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(AMF-6P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R106	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R107	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R108	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R109	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R110	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R111	1-216-805-11	s	METAL, CHIP 47 5% 1/16W
R112	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R113	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R114	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R116	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R117	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R118	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R119	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R120	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R121	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R122	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R123	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R124	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R126	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R127	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R128	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R129	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R130	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R131	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R132	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R133	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R134	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R135	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R136	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R139	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R140	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R141	1-216-814-11	s	METAL, CHIP 270 5% 1/16W
R142	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R143	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R144	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R145	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R146	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R147	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R148	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R149	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R150	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R151	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R152	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R153	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R154	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R155	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R156	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R157	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R158	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R159	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R160	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R161	1-216-864-11	s	METAL, CHIP 0-OHM
R162	1-216-864-11	s	METAL, CHIP 0-OHM
R163	1-216-815-11	s	METAL, CHIP 330 5% 1/16W
R164	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R165	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R201	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R202	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R203	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W

(AMF-6P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R205	1-216-820-11	s	METAL, CHIP 820 5% 1/16W
R206	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R401	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R402	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R403	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R404	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R405	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R406	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R503	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R504	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R505	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R506	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R507	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R508	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R509	1-218-302-11	s	METAL CHIP 8.2K 1% 1/16W
R510	1-218-301-11	s	METAL CHIP 3.9K 1% 1/16W
R511	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R512	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R517	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R518	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R541	1-218-300-11	s	METAL, CHIP 3.3K 1% 1/16W
R542	1-218-299-11	s	METAL, CHIP 2.7K 1% 1/16W
R543	1-218-300-11	s	METAL, CHIP 3.3K 1% 1/16W
R544	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R546	1-218-301-11	s	METAL CHIP 3.9K 1% 1/16W
R547	1-218-304-11	s	METAL CHIP 12K 1% 1/16W
R548	1-218-297-11	s	METAL, CHIP 680 1% 1/16W
R549	1-218-298-11	s	METAL, CHIP 2.2K 1% 1/16W
R550	1-218-299-11	s	METAL, CHIP 2.7K 1% 1/16W
R551	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R552	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R553	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R554	1-218-299-11	s	METAL, CHIP 2.7K 1% 1/16W
R555	1-218-300-11	s	METAL, CHIP 3.3K 1% 1/16W
R556	1-218-300-11	s	METAL, CHIP 3.3K 1% 1/16W
R557	1-218-304-11	s	METAL CHIP 12K 1% 1/16W
R558	1-218-301-11	s	METAL CHIP 3.9K 1% 1/16W
R560	1-218-298-11	s	METAL, CHIP 2.2K 1% 1/16W
R561	1-218-297-11	s	METAL, CHIP 680 1% 1/16W
R562	1-218-299-11	s	METAL, CHIP 2.7K 1% 1/16W
R563	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R564	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R565	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R572	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R573	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R574	1-216-848-11	s	METAL, CHIP 180K 5% 1/16W
R575	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R576	1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
R577	1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
R578	1-218-318-11	s	METAL, CHIP 5.6K 1% 1/16W
R579	1-218-304-11	s	METAL CHIP 12K 1% 1/16W
R580	1-218-298-11	s	METAL, CHIP 2.2K 1% 1/16W
R581	1-218-322-11	s	METAL, CHIP 47K 1% 1/16W
R582	1-218-322-11	s	METAL, CHIP 47K 1% 1/16W
R583	1-218-315-11	s	METAL, CHIP 1K 1% 1/16W
R584	1-218-303-11	s	METAL, CHIP 10K 1% 1/16W
R585	1-218-318-11	s	METAL, CHIP 5.6K 1% 1/16W
R586	1-218-304-11	s	METAL CHIP 12K 1% 1/16W
R587	1-218-298-11	s	METAL, CHIP 2.2K 1% 1/16W

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Ref. No. or Q'ty	Part No.	SP	Description
R588	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R589	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R590	1-218-315-11	s	METAL, CHIP 1K 1% 1/16W
R591	1-218-303-11	s	METAL, CHIP 10K 1% 1/16W
R601	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R602	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R603	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R604	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R605	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R606	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R607	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R608	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
RV1	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV2	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV3	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV4	1-230-874-11	s	RES, ADJ, METAL 100K
RV5	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV6	1-237-034-11	s	RES, ADJ, METAL 2K
RV7	1-237-036-11	s	RES, ADJ, METAL 10K
RV8	1-230-871-11	s	RES, ADJ, METAL 22K
RV10	1-237-032-11	s	RES, ADJ, METAL 500
RV101	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV102	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV103	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV104	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV107	1-230-866-11	s	RES, ADJ, METAL 470
RV501	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV502	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV503	1-237-034-11	s	RES, ADJ, METAL 2K
RV504	1-237-034-11	s	RES, ADJ, METAL 2K
RV505	1-230-869-11	s	RES, ADJ, METAL 4.7K
TH501	1-808-565-21	s	THERMISTOR
TH502	1-808-565-21	s	THERMISTOR

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

AT-49B BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8271-329-B	o	MOUNTED CIRCUIT BOARD, AT-49B
1pc	3-724-713-01	o	PLATE (AT-49), ORNAMENTAL
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-688-001-12	s	W 2, MIDDLE
3pcs	3-621-124-00	s	SPACER
C15	1-163-251-11	s	CERAMIC 100PF 5% 50V
C16	1-162-637-11	s	CERAMIC, CHIP 0.47uF 16V
C20	1-163-235-11	s	CERAMIC 22PF 5% 50V
C21	1-127-558-11	s	ELECT(SOLID) 10uF 20% 10V
C23	1-163-235-11	s	CERAMIC 22PF 5% 50V
C24	1-127-558-11	s	ELECT(SOLID) 10uF 20% 10V
C25	1-163-239-11	s	CERAMIC 33PF 5% 50V
C26	1-163-239-11	s	CERAMIC 33PF 5% 50V
C40	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C41	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C42	1-131-388-00	s	TANTALUM 68uF 10% 6.3V
C43	1-135-227-11	s	TANTAL 100uF 20% 6.3V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
D1	8-719-104-34	s	DIODE 1S2836
D2	8-719-104-34	s	DIODE 1S2836
D3	8-719-800-76	s	DIODE 1SS226
D4	8-719-104-34	s	DIODE 1S2836
IC1	1-807-412-12	s	IC BH-1219A
IC2	1-807-413-11	s	IC BH-1220
IC3	1-807-414-11	s	IC BH-1221
IC4	8-759-200-79	s	IC TC4049BF
IC5	8-759-906-54	s	IC TL064CNS
IC6	8-759-009-05	s	IC MC14051BF
IC7	8-759-101-12	s	IC UPC311G2
IC8	8-759-918-65	s	IC TL7700CPS
IC9	8-759-204-79	s	IC TC40H241F
IC10	8-759-109-70	s	IC UPC4560G2
IC11	8-759-400-89	s	IC MN1237AD
IC12	8-741-100-58	s	IC BX-1179A
IC13	8-759-906-53	s	IC TL062CPS
IC14	8-759-181-81	s	IC HD6305Y0E95P
IC16	8-759-906-53	s	IC TL062CPS
IC17	8-752-330-59	s	IC CXK1011P
Q1	8-729-216-22	s	TRANSISTOR 2SA1162
Q2	8-729-109-44	s	TRANSISTOR 2SK94
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q6	8-729-216-22	s	TRANSISTOR 2SA1162
Q7	8-729-216-22	s	TRANSISTOR 2SA1162
R48	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R49	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R52	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R72	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R73	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R94	1-216-692-11	s	METAL, CHIP 51K 0.5% 1/10W
R100	1-249-388-11	s	CARBON 3.9 5% 1/4W
RB1	1-235-813-11	s	COMPOSITION CIRCUIT BLOCK
RB2	1-235-813-11	s	COMPOSITION CIRCUIT BLOCK
RB3	1-231-387-00	s	COMPOSITION CIRCUIT BLOCK
RV1	1-237-035-11	s	RES, ADJ, METAL 5K
RV2	1-228-474-00	s	RES, ADJ, METAL 10K
RV4	1-237-035-11	s	RES, ADJ, METAL 5K
S1	1-570-598-11	o	SWITCH, DIP 4-CKT
S2	1-570-857-11	s	SWITCH, SLIDE
X1	1-567-192-11	s	RESONATOR, CERAMIC 4.00MHz

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

FL-46 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-625-892-11	s	PRINTED CIRCUIT BOARD, FL-46 FLEXIB

FL-55P BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6713-349-A	o	MOUNTED CIRCUIT BOARD, FL-55P
C1	1-163-135-00	s	CERAMIC, CHIP 560PF 5% 50V
C4	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C11	1-163-135-00	s	CERAMIC, CHIP 560PF 5% 50V
D1	8-719-941-09	s	DIODE DAP202U
IC1	8-759-981-54	s	IC RC2041MD
Q1	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q2	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q11	8-729-209-07	s	TRANSISTOR 2SC4213-B
R1	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R11	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
RV1	1-228-478-11	s	RES, ADJ, METAL 200K
RV11	1-228-478-11	s	RES, ADJ, METAL 200K
RY1	1-515-614-21	s	RELAY

FL-57 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-625-895-11	s	PRINTED CIRCUIT BOARD, FL-57 FLEXIB Serial No. Up to 40315
1pc	1-625-895-21	s	PRINTED CIRCUIT BOARD, FL-57 FLEXIB Serial No. 40316 AND HIGHER
C1	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V

HP-43 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-569-193-11	s	CONTACT
1pc	1-569-196-11	o	HOUSING, 3P
1pc	1-627-593-11	o	PRINTED CIRCUIT BOARD, HP-43
C1	1-162-773-11	s	CERAMIC 0.0047uF 5% 50V
C2	1-162-773-11	s	CERAMIC 0.0047uF 5% 50V
J1	1-507-980-21	s	JACK
R1	1-249-395-11	s	CARBON 15 5% 1/4W
R2	1-249-395-11	s	CARBON 15 5% 1/4W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

IE-30P BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7515-156-A	o	MOUNTED CIRCUIT BOARD, IE-30P (including IE-31)
1pc	3-724-712-02	o	PLATE (IE-20), ORNAMENTAL
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-688-001-12	s	W 2, MIDDLE
2pcs	3-621-124-00	s	SPACER
C7	1-124-282-00	s	ELECT, NONPOLAR 22uF 20% 25V
C8	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C9	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C16	1-163-239-11	s	CERAMIC 33PF 5% 50V
C17	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C18	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C19	1-163-239-11	s	CERAMIC 33PF 5% 50V
C20	1-163-227-11	s	CERAMIC 10PF 5% 50V
C26	1-163-227-11	s	CERAMIC 10PF 5% 50V
C31	1-163-239-11	s	CERAMIC 33PF 5% 50V
C32	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C33	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C34	1-163-239-11	s	CERAMIC 33PF 5% 50V
C35	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C37	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C45	1-164-330-21	s	CERAMIC 0.22uF 10% 16V
C48	1-162-637-11	s	CERAMIC, CHIP 0.47uF 16V
C57	1-163-251-11	s	CERAMIC 100PF 5% 50V
C71	1-124-584-00	s	ELECT 100uF 20% 10V
C72	1-163-116-00	s	CERAMIC, CHIP 91PF 5% 50V
C76	1-163-081-00	s	CERAMIC, CHIP 0.22uF 25V
C79	1-163-235-11	s	CERAMIC 22PF 5% 50V
C82	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C84	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C85	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C86	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C87	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C93	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C97	1-124-584-00	s	ELECT 100uF 20% 10V
C98	1-124-286-00	s	ELECT 33uF 20% 10V
C99	1-163-229-11	s	CERAMIC 12PF 5% 50V
C100	1-163-235-11	s	CERAMIC 22PF 5% 50V
C101	1-131-379-00	s	TANTALUM 22uF 10% 10V
C102	1-163-222-11	s	CERAMIC 5PF 0.25PF 50V
C106	1-163-239-11	s	CERAMIC 33PF 5% 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CV1	1-141-448-21	s	CAP, ADJ
CV2	1-141-423-61	s	CAP, ADJ
CV3	1-141-423-61	s	CAP, ADJ
D1	8-719-800-76	s	DIODE 1SS226
D2	8-719-400-18	s	DIODE MA152WK
D3	8-719-400-18	s	DIODE MA152WK
D4	8-719-948-47	s	DIODE HSM88AS
D5	8-719-948-47	s	DIODE HSM88AS
D6	8-719-800-76	s	DIODE 1SS226
D7	8-719-104-34	s	DIODE 1S2836
D8	8-719-948-47	s	DIODE HSM88AS
D9	8-719-948-47	s	DIODE HSM88AS
DL1	1-415-756-11	s	DELAY LINE
DL2	1-415-485-11	s	120nS+6nS

(IE-30P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC1	8-759-981-51	s	IC RC1496M
IC4	8-759-906-53	s	IC TL062CPS
IC5	1-807-422-11	s	IC BH-1217
IC6	8-759-906-53	s	IC TL062CPS
IC7	8-759-981-51	s	IC RC1496M
IC8	8-759-009-51	s	IC MC14538BF
IC9	8-759-009-51	s	IC MC14538BF
IC10	8-759-008-79	s	IC MC14011BF
L1	1-408-785-21	s	CHIP 47uH
L4	1-410-717-31	s	INDUCTOR, CHIP 100uH
L5	1-408-777-00	s	CHIP 10uH
L6	1-408-780-21	s	INDUCTOR CHIP 18uH
L7	1-410-717-31	s	INDUCTOR, CHIP 100uH
LV1	1-408-845-00	s	INDUCTOR, VAR, 100uH
Q1	8-729-122-63	s	TRANSISTOR 2SA1226
Q2	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q3	8-729-122-63	s	TRANSISTOR 2SA1226
Q9	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q10	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q11	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q12	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q13	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q14	8-729-122-63	s	TRANSISTOR 2SA1226
Q15	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q21	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q22	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q23	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q24	8-729-122-63	s	TRANSISTOR 2SA1226
Q25	8-729-109-44	s	TRANSISTOR 2SK94
Q26	8-729-109-44	s	TRANSISTOR 2SK94
Q27	8-729-122-63	s	TRANSISTOR 2SA1226
Q28	8-729-122-63	s	TRANSISTOR 2SA1226
Q29	8-729-109-44	s	TRANSISTOR 2SK94
Q30	8-729-109-44	s	TRANSISTOR 2SK94
Q31	8-729-122-63	s	TRANSISTOR 2SA1226
Q32	8-729-122-63	s	TRANSISTOR 2SA1226
Q33	8-729-122-63	s	TRANSISTOR 2SA1226
Q34	8-729-122-63	s	TRANSISTOR 2SA1226
Q35	8-729-122-63	s	TRANSISTOR 2SA1226
Q36	8-729-122-63	s	TRANSISTOR 2SA1226
Q37	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q38	8-729-109-44	s	TRANSISTOR 2SK94
Q41	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q42	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q43	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q44	8-729-109-44	s	TRANSISTOR 2SK94
Q45	8-729-109-44	s	TRANSISTOR 2SK94
Q46	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q47	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q48	8-729-122-63	s	TRANSISTOR 2SA1226
Q49	8-729-122-63	s	TRANSISTOR 2SA1226
Q50	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q51	8-729-122-63	s	TRANSISTOR 2SA1226
Q52	8-729-122-63	s	TRANSISTOR 2SA1226
Q53	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q54	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q56	8-729-122-63	s	TRANSISTOR 2SA1226

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(IE-30P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q57	8-729-122-63	s	TRANSISTOR 2SA1226
Q58	8-729-216-22	s	TRANSISTOR 2SA1162
Q59	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R7	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R8	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R10	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R13	1-216-641-11	s	METAL, CHIP 390 0.5% 1/10W
R28	1-216-631-11	s	METAL, CHIP 150 0.5% 1/10W
R29	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R32	1-216-634-11	s	METAL, CHIP 200 0.5% 1/10W
R33	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R34	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R45	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R59	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R60	1-216-631-11	s	METAL, CHIP 150 0.5% 1/10W
R63	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R79	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R80	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R81	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R82	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R88	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R89	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R91	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R93	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R94	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R108	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R109	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R110	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R127	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R128	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R129	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R147	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R148	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R161	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R162	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R163	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R164	1-216-678-11	s	METAL, CHIP 13K 0.5% 1/10W
RV1	1-237-034-11	s	RES, ADJ, METAL 2K
RV2	1-237-032-11	s	RES, ADJ, METAL 500
RV3	1-237-035-11	s	RES, ADJ, METAL 5K
RV4	1-228-471-00	s	RES, ADJ, METAT 1K
RV5	1-228-474-00	s	RES, ADJ, METAL 10K
RV6	1-237-035-11	s	RES, ADJ, METAL 5K
RV7	1-228-472-00	s	RES, ADJ, METAL 2K
RV8	1-228-470-00	s	RES, ADJ, METAL 500
RV10	1-237-035-11	s	RES, ADJ, METAL 5K
RV12	1-237-038-11	s	RES, ADJ, METAL 50K
RV13	1-237-032-11	s	RES, ADJ, METAL 500
RV14	1-237-033-11	s	RES, ADJ, METAL 1K
S1	1-570-610-11	s	SWITCH, TOGGLE

IE-31 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7520-521-A	o	MOUNTED CIRCUIT BOARD, IE-31
C110	1-135-216-11	s	TANTAL 10uF 20% 10V
C113	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C114	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C115	1-135-216-11	s	TANTAL 10uF 20% 10V
C116	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C117	1-163-239-11	s	CERAMIC 33PF 5% 50V
C118	1-135-216-11	s	TANTAL 10uF 20% 10V
CN4	1-566-475-11	o	PIN, SOCKET 3P
CN5	1-566-475-11	o	PIN, SOCKET 3P
D10	8-719-800-76	s	DIODE 1SS226
DL3	1-415-408-11	s	DELAY LINE, DUAL 50nS, 100nS
DL4	1-415-502-11	s	DELAY LINE 100nS
Q65	8-729-122-63	s	TRANSISTOR 2SA1226
Q66	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q67	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q68	8-729-175-73	s	TRANSISTOR 2SC2757
Q69	8-729-175-73	s	TRANSISTOR 2SC2757
Q70	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q71	8-729-175-73	s	TRANSISTOR 2SC2757
Q72	8-729-122-63	s	TRANSISTOR 2SA1226
Q73	8-729-122-63	s	TRANSISTOR 2SA1226
Q74	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q75	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R203	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R204	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R205	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R207	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R208	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R209	1-216-656-11	s	METAL, CHIP 1.6K 0.5% 1/10W
R211	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R215	1-216-042-00	s	METAL, CHIP 510 5% 1/10W
R217	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R219	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R220	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R221	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R224	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R226	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R227	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R231	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
RV17	1-237-032-11	s	RES, ADJ, METAL 500
RV18	1-237-032-11	s	RES, ADJ, METAL 500
RV19	1-237-035-11	s	RES, ADJ, METAL 5K
S2	1-553-510-00	s	SWITCH, SLIDE

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

IF-298A BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8271-331-A	o	MOUNTED CIRCUIT BOARD, IF-298A
1pc	3-176-007-01	o	BRACKET (A), IF
1pc	3-176-008-01	o	BRACKET (B), IF
2pcs	3-742-072-01	o	SPACER (IF)
1pc	3-742-073-11	o	COVER, IF
2pcs	7-621-772-50	s	SCREW +B 2X10
2pcs	7-621-771-06	s	SCREW +B 2X5
2pcs	3-176-009-01	o	SUPPORT (TG)
C11	1-135-216-11	s	TANTAL 10uF 20% 10V
C13	1-135-216-11	s	TANTAL 10uF 20% 10V
C24	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C31	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C32	1-135-216-11	s	TANTAL 10uF 20% 10V
C33	1-135-216-11	s	TANTAL 10uF 20% 10V
CN1	1-506-476-11	o	CONNECTOR, 11P, MALE
CN2	1-565-157-11	o	CONNECTOR, 10P, MALE
CN3	1-565-161-11	o	CONNECTOR, 14P, MALE
CN4	1-565-161-11	o	CONNECTOR, 14P, MALE
CN5	1-506-473-11	o	CONNECTOR, 8P, MALE
D1	8-719-400-18	s	DIODE MA152WK
D2	8-719-924-75	s	DIODE HZS5.6JB2
D3	8-719-400-18	s	DIODE MA152WK
D6	8-719-400-18	s	DIODE MA152WK
D7	8-719-800-76	s	DIODE 1SS226
D8	8-719-400-18	s	DIODE MA152WK
D9	8-719-400-18	s	DIODE MA152WK
D10	8-719-400-18	s	DIODE MA152WK
D11	8-719-104-34	s	DIODE 1S2836
D12	8-719-400-18	s	DIODE MA152WK
D13	8-719-400-18	s	DIODE MA152WK
IC1	8-759-209-97	s	IC TC4S81F
IC2	8-759-101-12	s	IC UPC311G2
IC3	8-741-158-80	s	IC SBX1588-01
IC4	8-741-158-80	s	IC SBX1588-01
IC5	8-741-158-80	s	IC SBX1588-01
IC6	8-759-071-41	s	IC CXD8154BM
IC7	8-759-008-79	s	IC MC14011BF
IC8	8-759-009-19	s	IC MC14081BF
IC9	8-759-009-19	s	IC MC14081BF
IC10	8-759-207-74	s	IC TC4030BFHB
IC11	8-759-209-90	s	IC TC4S71F
IC12	8-759-209-97	s	IC TC4S81F
IC13	8-759-008-82	s	IC MC14013BF
IC14	8-759-209-69	s	IC TC4S11F
IC15	8-759-234-13	s	IC TC4S30F
IC16	8-759-209-57	s	IC TC4S69F
IC17	8-759-209-57	s	IC TC4S69F
L1	1-408-785-21	s	CHIP 47uH
Q1	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q2	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q4	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q5	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q6	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q7	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q8	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q9	8-729-216-22	s	TRANSISTOR 2SA1162

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(IF-298A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q11	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q12	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q13	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R1	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R8	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R9	1-216-620-11	s	METAL, CHIP 51 0.5% 1/10W
R10	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R11	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R14	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R15	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R16	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R22	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R23	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R24	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R28	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R29	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R30	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R40	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R41	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R42	1-216-660-11	s	METAL, CHIP 2.4K 0.5% 1/10W
R53	1-218-761-11	s	METAL 240K 0.50% 1/10W
R54	1-218-769-11	s	METAL 510K 0.50% 1/10W
R64	1-218-769-11	s	METAL 510K 0.50% 1/10W
R66	1-216-668-11	s	METAL, CHIP 5.1K 0.5% 1/10W
S1	1-570-857-11	s	SWITCH, SLIDE
S2	1-570-857-11	s	SWITCH, SLIDE
S3	1-570-857-11	s	SWITCH, SLIDE
S4	1-570-857-11	s	SWITCH, SLIDE
S5	1-570-857-11	s	SWITCH, SLIDE
S6	1-570-857-11	s	SWITCH, SLIDE
S7	1-553-510-00	s	SWITCH, SLIDE
S8	1-553-510-00	s	SWITCH, SLIDE
T1	1-427-613-11	s	TRANSFORMER, AUDIO INPUT OUTPUT

KY-124 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-625-549-11	o	PRINTED CIRCUIT BOARD, KY-124
CN1	1-565-143-11	o	CONNECTOR, 10P, MALE
D1	8-719-049-48	s	DIODE LT1D11A
D2	8-719-049-48	s	DIODE LT1D11A
D3	8-719-049-48	s	DIODE LT1D11A
S1	1-554-371-51	s	SWITCH, TACTILE
S2	1-554-371-51	s	SWITCH, TACTILE
S3	1-554-371-51	s	SWITCH, TACTILE
S4	1-554-371-51	s	SWITCH, TACTILE
S5	1-554-371-51	s	SWITCH, TACTILE

LD-21 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6725-602-A	o	MOUNTED CIRCUIT BOARD, LD-21
1pc	3-723-091-01	o	HOLDER, TOP SENSOR
CN1	1-506-471-11	o	CONNECTOR, 6P, MALE
D1	8-719-106-36	s	DIODE RD8.2M-B3
IC1	8-759-948-05	s	IC BA6229
L1	1-408-773-31	s	INDUCTOR CHIP 4.7uH
L2	1-408-773-31	s	INDUCTOR CHIP 4.7uH
L11	1-464-909-21	s	COIL, SENSOR
Q1	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6

LP-64 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-643-704-11	o	PRINTED CIRCUIT BOARD, LP-64
D1	8-719-026-39	s	DIODE CL-150UR-CD

LP-65 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-643-705-11	o	PRINTED CIRCUIT BOARD, LP-65
D1	8-719-026-16	s	DIODE CL-150D-CD
D2	8-719-026-39	s	DIODE CL-150UR-CD
D3	8-719-026-16	s	DIODE CL-150D-CD

LP-66 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-562-147-11	s	HOUSING, 2P
1pc	1-562-735-11	o	HOUSING, 2P
1pc	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
1pc	1-564-832-11	o	CONTACT
1pc	1-643-706-11	o	PRINTED CIRCUIT BOARD, LP-66
1pc	3-722-474-05	o	BRACKET, LP
2pcs	7-627-556-37	s	SCREW,PRECISION +P2.6X4 TYPE 1
D1	8-719-950-44	s	DIODE GL-5LR40,RED
D2	8-719-950-44	s	DIODE GL-5LR40,RED

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

MB-317P BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7515-157-A	o	MOUNTED CIRCUIT BOARD, MB-317P
26pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
2pcs	3-722-391-01	o	HOLDER, GP2S09
C2	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C3	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C4	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C5	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C61	1-162-568-11	s	CERAMIC, CHIP 0.33uF 25V
C62	1-162-568-11	s	CERAMIC, CHIP 0.33uF 25V
C64	1-163-143-00	s	CERAMIC, CHIP 0.0012uF 5% 50V
C66	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C101	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C102	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C103	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C104	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C105	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C106	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C121	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C126	1-135-201-11	s	TANTALUM 10uF 20% 6.3V
C127	1-135-201-11	s	TANTALUM 10uF 20% 6.3V
C128	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C151	1-126-403-11	s	ELECT 3.3uF 20% 50V
C152	1-126-403-11	s	ELECT 3.3uF 20% 50V
C153	1-126-403-11	s	ELECT 3.3uF 20% 50V
C154	1-163-227-11	s	CERAMIC 10PF 5% 50V
C155	1-163-227-11	s	CERAMIC 10PF 5% 50V
C156	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C157	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C158	1-162-765-11	s	CERAMIC, 1000PF
C159	1-131-381-00	s	TANTAL 47uF 10V
C160	1-131-381-00	s	TANTAL 47uF 10V
C201	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C202	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C301	1-163-243-11	s	CERAMIC 47PF 5% 50V
C302	1-163-241-11	s	CERAMIC, CHIP 39PF 5% 50V
C401	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C402	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C403	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C404	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C407	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
CN1	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN2	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN3	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN4	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN5	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN6	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN7	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN8	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN9	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN10	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN11	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN12	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN13	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN21	1-566-400-11	o	CONNECTOR, 20P, MALE
CN22	1-566-391-11	o	CONNECTOR 12P
CN23	1-506-468-11	o	CONNECTOR, 3P, MALE
CN24	1-506-470-11	o	CONNECTOR, 5P, MALE
CN25	1-506-468-11	o	CONNECTOR, 3P, MALE

(MB-317P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
CN31	1-566-536-11	s	CONNECTOR, 20P
CN32	1-566-536-11	s	CONNECTOR, 20P
CN41	1-562-772-11	o	CONNECTOR, 12P, FEMALE
CN42	1-562-772-11	o	CONNECTOR, 12P, FEMALE
CN43	1-562-772-11	o	CONNECTOR, 12P, FEMALE
CN44	1-562-773-11	o	CONNECTOR, 40P, FEMALE
CN50	1-566-397-11	o	CONNECTOR, 14P, MALE
CN51	1-566-397-11	o	CONNECTOR, 14P, MALE
CN52	1-506-471-11	o	CONNECTOR, 6P, MALE
CN53	1-506-469-11	o	CONNECTOR, 4P, MALE
CN54	1-566-398-11	o	CONNECTOR, 16P, MALE
CN55	1-506-470-11	o	CONNECTOR, 5P, MALE
CN56	1-506-481-11	o	CONNECTOR, 2P, MALE
CN57	1-506-470-41	o	CONNECTOR, 5P, MALE
CN58	1-566-395-11	o	CONNECTOR, 10P, MALE
CN59	1-565-157-11	o	CONNECTOR, 10P, MALE
CN60	1-564-710-11	s	CONNECTOR, 8P, MALE
CN61	1-506-468-11	o	CONNECTOR, 3P, MALE
CN62	1-506-469-11	o	CONNECTOR, 4P, MALE
CN63	1-506-468-11	o	CONNECTOR, 3P, MALE
CN64	1-564-704-11	o	CONNECOR, 2P, MALE
CN501	1-506-470-11	o	CONNECTOR, 5P, MALE
CN502	1-506-471-11	o	CONNECTOR, 6P, MALE
CN503	1-506-467-11	o	CONNECTOR, 2P, MALE
CN504	1-506-468-11	o	CONNECTOR, 3P, MALE
CN505	1-506-472-11	o	CONNECTOR, 7P, MALE
CN506	1-506-467-11	o	CONNECTOR, 2P, MALE
CN507	1-506-467-11	o	CONNECTOR, 2P, MALE
CN508	1-565-156-11	o	CONNECTOR, 9P, MALE
CN509	1-506-467-11	o	CONNECTOR, 2P, MALE
D1	8-719-800-76	s	DIODE 1SS226
D2	8-719-400-18	s	DIODE MA152WK
D3	8-719-400-18	s	DIODE MA152WK
D4	8-719-400-18	s	DIODE MA152WK
D61	8-719-941-23	s	DIODE DA204U
D62	8-719-941-23	s	DIODE DA204U
D63	8-719-105-28	s	DIODE RD2.4M-B
D64	8-719-105-28	s	DIODE RD2.4M-B
D101	8-719-200-36	s	DIODE E10QS04
D102	8-719-200-36	s	DIODE E10QS04
D103	8-719-200-36	s	DIODE E10QS04
D105	8-719-106-88	s	DIODE RD15M-B1
D151	8-719-800-76	s	DIODE 1SS226
D152	8-719-800-76	s	DIODE 1SS226
D401	8-719-800-76	s	DIODE 1SS226
D402	8-719-800-76	s	DIODE 1SS226
D403	8-719-800-76	s	DIODE 1SS226
IC1	8-759-403-48	s	IC AN6701S
IC2	8-759-300-71	s	IC MC14053BF
IC3	8-759-209-57	s	IC TC4S69F
IC4	8-759-209-57	s	IC TC4S69F
IC61	8-759-906-53	s	IC TL062CPS
IC62	8-759-300-71	s	IC MC14053BF
IC63	8-759-700-45	s	IC NJM4556M-A
IC101	8-759-805-06	s	IC CXA1127M
IC102	8-759-700-43	s	IC NJM4558M
IC121	8-759-700-43	s	IC NJM4558M

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(MB-317P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC122	8-759-700-43	s	IC NJM4558M
IC151	8-759-981-54	s	IC RC2041MD
IC201	8-759-200-88	s	IC TC4512BF
IC202	8-759-200-88	s	IC TC4512BF
IC401	8-759-981-65	s	IC LM2903M
IC402	8-759-605-18	s	IC CX-518
IC403	8-759-209-90	s	IC TC4S71F
IC404	8-759-300-71	s	IC MC14053BF
IC405	8-759-209-97	s	IC TC4S81F
L1	1-408-785-21	s	CHIP 47uH
L2	1-408-785-21	s	CHIP 47uH
L3	1-408-781-00	s	CHIP 22uH
L16	1-408-785-21	s	CHIP 47uH
L151	1-408-776-00	s	INDUCTOR CHIP 8.2uH
L152	1-408-776-00	s	INDUCTOR CHIP 8.2uH
PD31	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PD32	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PD33	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PD34	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PD35	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PD36	8-719-939-11	s	PHOTOINTERRUPTER GP-2S09-B
PD37	8-719-939-11	s	PHOTOINTERRUPTER GP-2S09-B
Q1	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q2	8-729-117-32	s	TRANSISTOR 2SC4177
Q3	8-729-117-32	s	TRANSISTOR 2SC4177
Q4	8-729-117-32	s	TRANSISTOR 2SC4177
Q5	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q6	8-729-117-32	s	TRANSISTOR 2SC4177
Q31	8-729-117-32	s	TRANSISTOR 2SC4177
Q32	8-729-117-32	s	TRANSISTOR 2SC4177
Q33	8-729-117-32	s	TRANSISTOR 2SC4177
Q34	8-729-117-32	s	TRANSISTOR 2SC4177
Q35	8-729-117-32	s	TRANSISTOR 2SC4177
Q36	8-729-117-32	s	TRANSISTOR 2SC4177
Q37	8-729-117-32	s	TRANSISTOR 2SC4177
Q107	8-729-106-68	s	TRANSISTOR 2SC1615A-GP
Q108	8-729-109-44	s	TRANSISTOR 2SK94
Q151	8-729-271-31	s	TRANSISTOR 2SC2713G
Q201	8-729-216-22	s	TRANSISTOR 2SA1162
Q202	8-729-421-71	s	TRANSISTOR 2SK620
Q301	8-729-906-33	s	TRANSISTOR DTC114YU
Q401	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q402	8-729-117-32	s	TRANSISTOR 2SC4177
Q403	8-729-109-44	s	TRANSISTOR 2SK94
Q404	8-729-117-32	s	TRANSISTOR 2SC4177
Q405	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q501	8-729-175-72	s	TRANSISTOR 2SC2757-T33
R7	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R8	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R9	1-216-680-11	s	METAL, CHIP 16K 0.5% 1/10W
R10	1-216-684-11	s	METAL, CHIP 24K 0.5% 1/10W
R11	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R72	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R74	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R75	1-216-662-11	s	METAL, CHIP 3K 0.5% 1/10W
R78	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R101	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W

(MB-317P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R103	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R104	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R116	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R121	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R122	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R123	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R124	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R153	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R154	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R155	1-216-638-11	s	METAL, CHIP 300 0.5% 1/10W
R157	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R158	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R161	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R162	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R163	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R164	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R166	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R167	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R168	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R169	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R501	1-216-690-11	s	METAL, CHIP 43K 0.5% 1/10W
R509	1-216-066-00	s	METAL, CHIP 5.1K 5% 1/10W
R514	1-216-114-00	s	METAL 510K 5% 1/10W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

PR-176 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8271-333-A	o	MOUNTED CIRCUIT BOARD, PR-176 (including PR-177 and PR-178)
1pc	3-724-710-01	o	PLATE (PR-102), ORNAMENTAL
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-623-952-21	s	WASHER 2.0, FIBER
1pc	7-688-001-12	s	W 2, MIDDLE
C3	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C4	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C6	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C9	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C13	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C18	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C21	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C23	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C28	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C29	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C30	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C31	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C40	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C41	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C43	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C44	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C47	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C48	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C49	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C52	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C54	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C56	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C57	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C60	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C62	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C67	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C68	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C69	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C70	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C80	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C81	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C84	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C85	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C86	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C89	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C94	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C97	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C99	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C104	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C105	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C106	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C107	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C129	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C130	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C136	1-163-131-00	s	CERAMIC, CHIP 390PF 5% 50V
C137	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C138	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C139	1-135-165-11	s	TANTAL 33uF 10% 16V
C140	1-163-241-11	s	CERAMIC, CHIP 39PF 5% 50V
C143	1-131-365-00	s	TANTALUM 10uF 10% 20V
C150	1-163-222-11	s	CERAMIC 5PF 0.25PF 50V

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

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Ref. No. or Q'ty	Part No.	SP	Description
C151	1-163-222-11	s	CERAMIC 5PF 0.25PF 50V
C152	1-163-222-11	s	CERAMIC 5PF 0.25PF 50V
C153	1-163-237-11	s	CERAMIC 27PF 5% 50V
C154	1-163-237-11	s	CERAMIC 27PF 5% 50V
C155	1-163-237-11	s	CERAMIC 27PF 5% 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-568-613-11	o	CONNECTOR, FEMAIL, 2P
CN4	1-568-613-11	o	CONNECTOR, FEMAIL, 2P
CN5	1-563-949-11	o	SOCKET, SIL 8P
CN8	1-568-613-11	o	CONNECTOR, FEMAIL, 2P
CN9	1-568-613-11	o	CONNECTOR, FEMAIL, 2P
CN12	1-568-613-11	o	CONNECTOR, FEMAIL, 2P
CV1	1-141-369-22	s	CAP, CHIP TRIMMER
CV2	1-141-369-22	s	CAP, CHIP TRIMMER
CV3	1-141-369-22	s	CAP, CHIP TRIMMER
D2	8-719-815-59	s	DIODE 1S1555-S
D4	8-719-400-18	s	DIODE MA152WK
D5	8-719-815-59	s	DIODE 1S1555-S
D7	8-719-400-18	s	DIODE MA152WK
D8	8-719-815-59	s	DIODE 1S1555-S
D12	8-719-815-59	s	DIODE 1S1555-S
D13	8-719-815-59	s	DIODE 1S1555-S
D14	8-719-815-59	s	DIODE 1S1555-S
D15	8-719-027-95	s	DIODE HSM88WK
D17	8-719-815-59	s	DIODE 1S1555-S
D18	8-719-815-59	s	DIODE 1S1555-S
D19	8-719-815-59	s	DIODE 1S1555-S
D20	8-719-027-95	s	DIODE HSM88WK
D21	8-719-815-59	s	DIODE 1S1555-S
D22	8-719-815-59	s	DIODE 1S1555-S
D23	8-719-815-59	s	DIODE 1S1555-S
D25	8-719-400-18	s	DIODE MA152WK
D26	8-719-800-76	s	DIODE 1SS226
D27	8-719-400-18	s	DIODE MA152WK
D28	8-719-400-18	s	DIODE MA152WK
D29	8-719-400-18	s	DIODE MA152WK
D30	8-719-800-76	s	DIODE 1SS226
D34	8-719-400-18	s	DIODE MA152WK
D35	8-719-800-76	s	DIODE 1SS226
DL1	1-415-489-31	s	DELAY LINE
DL2	1-415-489-31	s	DELAY LINE
DL3	1-415-489-31	s	DELAY LINE
IC1	8-759-906-54	s	IC TL064CNS
IC2	8-759-906-53	s	IC TL062CPS
IC3	8-759-906-54	s	IC TL064CNS
IC5	8-759-906-53	s	IC TL062CPS
IC7	8-759-906-53	s	IC TL062CPS
L1	1-408-785-21	s	CHIP 47uH
L2	1-408-785-21	s	CHIP 47uH
L3	1-408-781-00	s	CHIP 22uH
Q1	8-729-175-73	s	TRANSISTOR 2SC2757
Q2	8-729-122-63	s	TRANSISTOR 2SA1226
Q3	8-729-403-29	s	TRANSISTOR XN6435
Q4	8-729-403-32	s	TRANSISTOR XN6534
Q5	8-729-403-32	s	TRANSISTOR XN6534
Q6	8-729-403-32	s	TRANSISTOR XN6534
Q7	8-729-122-63	s	TRANSISTOR 2SA1226

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Ref. No. or Q'ty	Part No.	SP	Description
Q8	8-765-930-08	s	TRANSISTOR 3SK163-2
Q9	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q10	8-729-403-32	s	TRANSISTOR XN6534
Q11	8-729-109-44	s	TRANSISTOR 2SK94
Q12	8-729-109-44	s	TRANSISTOR 2SK94
Q13	8-729-403-29	s	TRANSISTOR XN6435
Q14	8-729-403-29	s	TRANSISTOR XN6435
Q16	8-729-403-29	s	TRANSISTOR XN6435
Q17	8-729-403-29	s	TRANSISTOR XN6435
Q18	8-729-122-63	s	TRANSISTOR 2SA1226
Q19	8-729-403-29	s	TRANSISTOR XN6435
Q20	8-729-403-32	s	TRANSISTOR XN6534
Q21	8-729-109-44	s	TRANSISTOR 2SK94
Q28	8-729-122-63	s	TRANSISTOR 2SA1226
Q29	8-729-175-73	s	TRANSISTOR 2SC2757
Q30	8-729-122-63	s	TRANSISTOR 2SA1226
Q31	8-729-403-29	s	TRANSISTOR XN6435
Q32	8-729-403-32	s	TRANSISTOR XN6534
Q33	8-729-403-32	s	TRANSISTOR XN6534
Q34	8-729-403-32	s	TRANSISTOR XN6534
Q35	8-729-122-63	s	TRANSISTOR 2SA1226
Q36	8-765-930-08	s	TRANSISTOR 3SK163-2
Q37	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q38	8-729-403-32	s	TRANSISTOR XN6534
Q39	8-729-109-44	s	TRANSISTOR 2SK94
Q40	8-729-109-44	s	TRANSISTOR 2SK94
Q41	8-729-403-29	s	TRANSISTOR XN6435
Q42	8-729-403-29	s	TRANSISTOR XN6435
Q44	8-729-403-29	s	TRANSISTOR XN6435
Q45	8-729-403-32	s	TRANSISTOR XN6534
Q46	8-729-403-29	s	TRANSISTOR XN6435
Q47	8-729-109-44	s	TRANSISTOR 2SK94
Q54	8-729-175-73	s	TRANSISTOR 2SC2757
Q55	8-729-122-63	s	TRANSISTOR 2SA1226
Q56	8-729-403-29	s	TRANSISTOR XN6435
Q57	8-729-403-32	s	TRANSISTOR XN6534
Q58	8-729-403-32	s	TRANSISTOR XN6534
Q59	8-729-403-32	s	TRANSISTOR XN6534
Q60	8-729-122-63	s	TRANSISTOR 2SA1226
Q61	8-765-930-08	s	TRANSISTOR 3SK163-2
Q62	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q63	8-729-403-32	s	TRANSISTOR XN6534
Q64	8-729-109-44	s	TRANSISTOR 2SK94
Q65	8-729-109-44	s	TRANSISTOR 2SK94
Q66	8-729-403-29	s	TRANSISTOR XN6435
Q67	8-729-403-29	s	TRANSISTOR XN6435
Q69	8-729-403-29	s	TRANSISTOR XN6435
Q70	8-729-403-32	s	TRANSISTOR XN6534
Q71	8-729-403-29	s	TRANSISTOR XN6435
Q72	8-729-109-44	s	TRANSISTOR 2SK94
Q90	8-729-403-32	s	TRANSISTOR XN6534
Q91	8-729-175-73	s	TRANSISTOR 2SC2757
Q92	8-729-175-73	s	TRANSISTOR 2SC2757
Q93	8-729-122-63	s	TRANSISTOR 2SA1226
Q95	8-729-122-63	s	TRANSISTOR 2SA1226
R2	1-216-637-11	s	METAL, CHIP 270 0.5% 1/10W
R4	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R5	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R8	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W

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Ref. No. or Q'ty	Part No.	SP	Description
R9	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R11	1-216-672-11	s	METAL, CHIP 7.5K 0.5% 1/10W
R12	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R13	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R16	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R20	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R21	1-216-692-11	s	METAL, CHIP 51K 0.5% 1/10W
R24	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R25	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R26	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R27	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R28	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R29	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R32	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R33	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R34	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R38	1-216-678-11	s	METAL, CHIP 13K 0.5% 1/10W
R40	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R42	1-216-650-11	s	METAL, CHIP 910 0.5% 1/10W
R43	1-216-676-11	s	METAL, CHIP 11K 0.5% 1/10W
R45	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R47	1-216-642-11	s	METAL, CHIP 430 0.5% 1/10W
R48	1-216-684-11	s	METAL, CHIP 24K 0.5% 1/10W
R50	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R51	1-216-673-11	s	METAL, CHIP 8.2K 0.5% 1/10W
R52	1-216-666-11	s	METAL, CHIP 4.3K 0.5% 1/10W
R55	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R57	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R58	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R61	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R62	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R63	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R68	1-216-654-11	s	METAL, CHIP 1.3K 0.5% 1/10W
R69	1-216-648-11	s	METAL, CHIP 750 0.5% 1/10W
R70	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R73	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R100	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R102	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R103	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R106	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R107	1-216-662-11	s	METAL, CHIP 3K 0.5% 1/10W
R108	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R110	1-216-672-11	s	METAL, CHIP 7.5K 0.5% 1/10W
R111	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R112	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R115	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R119	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R120	1-216-692-11	s	METAL, CHIP 51K 0.5% 1/10W
R125	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R126	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R127	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R131	1-216-678-11	s	METAL, CHIP 13K 0.5% 1/10W
R133	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R135	1-216-650-11	s	METAL, CHIP 910 0.5% 1/10W
R136	1-216-672-11	s	METAL, CHIP 7.5K 0.5% 1/10W
R139	1-216-642-11	s	METAL, CHIP 430 0.5% 1/10W
R140	1-216-684-11	s	METAL, CHIP 24K 0.5% 1/10W
R142	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R143	1-216-673-11	s	METAL, CHIP 8.2K 0.5% 1/10W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(PR-176 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R144	1-216-666-11	s	METAL, CHIP 4.3K 0.5% 1/10W
R147	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R149	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R150	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R154	1-216-654-11	s	METAL, CHIP 1.3K 0.5% 1/10W
R155	1-216-648-11	s	METAL, CHIP 750 0.5% 1/10W
R156	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R159	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R177	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R180	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R181	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R184	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R185	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R187	1-216-672-11	s	METAL, CHIP 7.5K 0.5% 1/10W
R188	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R189	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R192	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R196	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R197	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R198	1-216-673-11	s	METAL, CHIP 8.2K 0.5% 1/10W
R202	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R203	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R204	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R208	1-216-678-11	s	METAL, CHIP 13K 0.5% 1/10W
R210	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R212	1-216-650-11	s	METAL, CHIP 910 0.5% 1/10W
R213	1-216-676-11	s	METAL, CHIP 11K 0.5% 1/10W
R215	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R217	1-216-642-11	s	METAL, CHIP 430 0.5% 1/10W
R218	1-216-684-11	s	METAL, CHIP 24K 0.5% 1/10W
R220	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R221	1-216-673-11	s	METAL, CHIP 8.2K 0.5% 1/10W
R222	1-216-666-11	s	METAL, CHIP 4.3K 0.5% 1/10W
R225	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R227	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R228	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R232	1-216-654-11	s	METAL, CHIP 1.3K 0.5% 1/10W
R233	1-216-648-11	s	METAL, CHIP 750 0.5% 1/10W
R234	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R237	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R297	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R298	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R331	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R332	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R333	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R336	1-216-672-11	s	METAL, CHIP 7.5K 0.5% 1/10W
R337	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R338	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R340	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R341	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R342	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R343	1-216-642-11	s	METAL, CHIP 430 0.5% 1/10W
R344	1-216-650-11	s	METAL, CHIP 910 0.5% 1/10W
R352	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R353	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R359	1-216-692-11	s	METAL, CHIP 51K 0.5% 1/10W
RV1	1-237-032-11	s	RES, ADJ, METAL 500

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

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Ref. No. or Q'ty	Part No.	SP	Description
RV2	1-228-472-00	s	RES, ADJ, METAL 2K
RV3	1-228-472-00	s	RES, ADJ, METAL 2K
RV4	1-228-472-00	s	RES, ADJ, METAL 2K
RV7	1-237-034-11	s	RES, ADJ, METAL 2K
RV8	1-228-473-00	s	RES, ADJ, METAL 5K
RV9	1-228-473-00	s	RES, ADJ, METAL 5K
RV10	1-228-473-00	s	RES, ADJ, METAL 5K
RV12	1-228-471-00	s	RES, ADJ, METAT 1K
RV13	1-228-471-00	s	RES, ADJ, METAT 1K
RV14	1-228-471-00	s	RES, ADJ, METAT 1K
RV15	1-228-470-00	s	RES, ADJ, METAL 500
RV16	1-228-470-00	s	RES, ADJ, METAL 500
RV17	1-228-470-00	s	RES, ADJ, METAL 500
RV18	1-228-473-00	s	RES, ADJ, METAL 5K
RV19	1-228-473-00	s	RES, ADJ, METAL 5K
RV20	1-228-473-00	s	RES, ADJ, METAL 5K
RV21	1-237-032-11	s	RES, ADJ, METAL 500
RV23	1-237-034-11	s	RES, ADJ, METAL 2K
RV24	1-237-034-11	s	RES, ADJ, METAL 2K
RV25	1-237-032-11	s	RES, ADJ, METAL 500
RV28	1-237-034-11	s	RES, ADJ, METAL 2K
RV29	1-237-034-11	s	RES, ADJ, METAL 2K
RV38	1-237-034-11	s	RES, ADJ, METAL 2K
S1	1-570-857-11	s	SWITCH, SLIDE
S2	1-570-857-11	s	SWITCH, SLIDE
S3	1-570-857-11	s	SWITCH, SLIDE
S4	1-570-373-12	s	SWITCH, SLIDE
S5	1-570-373-12	s	SWITCH, SLIDE

PR-177 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8276-298-A	o	MOUNTED CIRCUIT BOARD, PR-177
C116	1-135-165-11	s	TANTAL 33uF 10% 16V
C117	1-135-165-11	s	TANTAL 33uF 10% 16V
C119	1-135-165-11	s	TANTAL 33uF 10% 16V
C120	1-135-165-11	s	TANTAL 33uF 10% 16V
C121	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C122	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C124	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C126	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C131	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C133	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C158	1-135-163-21	s	TANTAL 47uF 10% 4V
CN7	1-568-624-11	o	CONNECTOR, MAIL, 4P
CN8	1-568-622-11	o	CONNECTOR, MAIL, 2P
CN9	1-568-622-11	o	CONNECTOR, MAIL, 2P
CN10	1-568-624-11	o	CONNECTOR, MAIL, 4P
CN11	1-568-623-11	o	CONNECTOR, MAIL, 3P
CN12	1-568-622-11	o	CONNECTOR, MAIL, 2P
D9	8-719-104-34	s	DIODE 1S2836
D10	8-719-400-18	s	DIODE MA152WK
D11	8-719-400-18	s	DIODE MA152WK
D21	8-719-948-47	s	DIODE HSM88AS
D31	8-719-400-18	s	DIODE MA152WK
D36	8-719-104-34	s	DIODE 1S2836
IC9	8-759-906-53	s	IC TL062CPS
IC10	8-759-300-71	s	IC MC14053BF
Q79	8-729-403-29	s	TRANSISTOR XN6435
Q80	8-729-159-65	s	TRANSISTOR 2SD596-DV5
Q81	8-729-403-32	s	TRANSISTOR XN6534
Q82	8-729-403-32	s	TRANSISTOR XN6534
Q83	8-729-403-32	s	TRANSISTOR XN6534
Q84	8-729-403-32	s	TRANSISTOR XN6534
Q86	8-729-403-32	s	TRANSISTOR XN6534
Q87	8-729-403-32	s	TRANSISTOR XN6534
Q88	8-729-403-29	s	TRANSISTOR XN6435
Q89	8-729-175-73	s	TRANSISTOR 2SC2757
Q96	8-729-122-63	s	TRANSISTOR 2SA1226
R258	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R259	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R260	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R261	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R262	1-216-654-11	s	METAL, CHIP 1.3K 0.5% 1/10W
R263	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R264	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R265	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R268	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R269	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R270	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R271	1-216-654-11	s	METAL, CHIP 1.3K 0.5% 1/10W
R272	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R273	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R276	1-216-104-00	s	METAL 200K 0.50% 1/10W
R277	1-216-104-00	s	METAL 200K 0.50% 1/10W
R278	1-216-104-00	s	METAL 200K 0.50% 1/10W
R279	1-216-104-00	s	METAL 200K 0.50% 1/10W

(PR-177 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R288	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R325	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R326	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R327	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R328	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R329	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R345	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R346	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R347	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
RV30	1-237-036-11	s	RES, ADJ, METAL 10K
RV31	1-237-036-11	s	RES, ADJ, METAL 10K
RV32	1-237-036-11	s	RES, ADJ, METAL 10K
RV33	1-237-036-11	s	RES, ADJ, METAL 10K
RV34	1-237-035-11	s	RES, ADJ, METAL 5K
RV35	1-237-034-11	s	RES, ADJ, METAL 2K
RV36	1-237-034-11	s	RES, ADJ, METAL 2K
RV37	1-237-035-11	s	RES, ADJ, METAL 5K

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

PR-178 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8276-299-A	o	MOUNTED CIRCUIT BOARD, PR-178
C30	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C36	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C37	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C38	1-163-245-11	s	CERAMIC 56PF 5% 50V
C69	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C75	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C76	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C77	1-163-245-11	s	CERAMIC 56PF 5% 50V
C106	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C112	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C113	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C114	1-163-245-11	s	CERAMIC 56PF 5% 50V
CN2	1-568-622-11	o	CONNECTOR, MAIL, 2P
CN3	1-568-623-11	o	CONNECTOR, MAIL, 3P
CN4	1-568-622-11	o	CONNECTOR, MAIL, 2P
CN5	1-568-624-11	o	CONNECTOR, MAIL, 4P
CN6	1-568-624-11	o	CONNECTOR, MAIL, 4P
CN13	1-568-624-11	o	CONNECTOR, MAIL, 4P
Q22	8-729-403-29	s	TRANSISTOR XN6435
Q23	8-729-403-29	s	TRANSISTOR XN6435
Q24	8-729-403-32	s	TRANSISTOR XN6534
Q25	8-729-122-63	s	TRANSISTOR 2SA1226
Q26	8-729-122-63	s	TRANSISTOR 2SA1226
Q27	8-729-175-73	s	TRANSISTOR 2SC2757
Q48	8-729-403-29	s	TRANSISTOR XN6435
Q49	8-729-403-29	s	TRANSISTOR XN6435
Q50	8-729-403-32	s	TRANSISTOR XN6534
Q51	8-729-122-63	s	TRANSISTOR 2SA1226
Q52	8-729-122-63	s	TRANSISTOR 2SA1226
Q53	8-729-175-73	s	TRANSISTOR 2SC2757
Q73	8-729-403-29	s	TRANSISTOR XN6435
Q74	8-729-403-29	s	TRANSISTOR XN6435
Q75	8-729-403-32	s	TRANSISTOR XN6534
Q76	8-729-122-63	s	TRANSISTOR 2SA1226
Q77	8-729-122-63	s	TRANSISTOR 2SA1226
Q78	8-729-175-73	s	TRANSISTOR 2SC2757
R81	1-216-058-00	s	METAL 2.4K 5% 1/10W
R91	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R92	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R96	1-216-064-00	s	METAL, CHIP 4.3K 5% 1/10W
R167	1-216-058-00	s	METAL 2.4K 5% 1/10W
R171	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R172	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R176	1-216-064-00	s	METAL, CHIP 4.3K 5% 1/10W
R245	1-216-058-00	s	METAL 2.4K 5% 1/10W
R249	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R250	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R254	1-216-064-00	s	METAL, CHIP 4.3K 5% 1/10W

PS-162/162B BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6723-368-A	o	MOUNTED CIRCUIT BOARD PS-162 Serial No. Up to 40315
	A-8271-736-A	o	MOUNTED CIRCUIT BOARD PS-162B Serial No. 40316 AND HIGHER
1pc	3-724-752-01	o	HOLDER (PS), PC BOARD
1pc	3-729-012-01	s	SCREW (M2X5)
1pc	7-623-420-07	s	LW 2, TYPE B
C1	1-126-163-11	s	ELECT 4.7MF 20% 50V
C4	1-125-309-00	s	DOUBLE LAYERS 0.33FARAD 5.5V
C5	1-124-248-00	s	ELECT 22uF 20% 35V
CB1	⚠1-532-681-00	s	CIRCUIT BREAKER 4A 125V
CN1	1-564-705-11	o	CONNECTOR, 3P, MALE
CN2	1-564-707-11	o	CONNECTOR, 5P, MALE
CN3	1-506-468-11	o	CONNECTOR, 3P, MALE
CN4	1-506-468-11	o	CONNECTOR, 3P, MALE
CN5	1-564-710-11	s	CONNECTOR, 8P, MALE
CN6	1-566-528-11	s	CONNECTOR, 12P (FOR PS-162)
	1-695-903-21	o	CONNECTOR, 12P (FOR PS-162B)
CN7	1-564-704-11	o	CONNECOR, 2P, MALE
CN8	1-506-469-11	o	CONNECTOR, 4P, MALE
CN10	1-564-706-11	o	PIN HEADER, STRAIGHT 4P
D1	8-719-911-55	s	DIODE U05G
D2	8-719-800-76	s	DIODE 1SS226
D3	8-719-800-76	s	DIODE 1SS226
D4	8-719-911-55	s	DIODE U05G
D5	8-719-160-20	s	DIODE RD4.7FB
IC1	8-759-906-53	s	IC TL062CPS
IC2	8-759-939-41	s	IC S-81230AG-RB
Q1	8-729-202-62	s	TRANSISTOR 2SD1221
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3	8-729-119-59	s	TRANSISTOR 2SK612-Z
Q4	8-729-109-44	s	TRANSISTOR 2SK94
R1	1-249-389-11	s	CARBON 4.7 5% 1/4W
RV1	1-230-873-11	s	RES, ADJ, METAL 47K
S1	1-570-610-11	s	SWITCH, TOGGLE
S2	1-570-610-11	s	SWITCH, TOGGLE

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

SG-152BP BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8271-781-A	o	MOUNTED CIRCUIT BOARD, SG-152BP (including SG-157P)
A7	3-621-124-00	s	SPACER
A8	3-621-124-00	s	SPACER
A9	3-724-753-01	o	RING
A10	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
A11	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
A12	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
A13	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
A14	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
A15	3-734-721-01	o	PLATE (SG-152), ORNAMENTAL
A16	7-688-001-12	s	W 2, MIDDLE
C1	1-131-388-00	s	TANTALUM 68uF 10% 6.3V
C3	1-131-374-00	s	TANTALUM 33uF 10% 16V
C5	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C7	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C8	1-135-162-21	s	TANTAL 33uF 10% 6.3V
C9	1-163-241-11	s	CERAMIC, CHIP 39PF 5% 50V
C10	1-163-241-11	s	CERAMIC, CHIP 39PF 5% 50V
C11	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C13	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C14	1-163-809-11	s	CERAMIC, CHIP 0.047uF 10% 25V
C17	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C18	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C21	1-163-114-00	s	CERAMIC, CHIP 75PF 5% 50V
C22	1-163-243-11	s	CERAMIC 47PF 5% 50V
C24	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C28	1-163-809-11	s	CERAMIC, CHIP 0.047uF 10% 25V
C30	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C31	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C33	1-163-251-11	s	CERAMIC 100PF 5% 50V
C34	1-163-251-11	s	CERAMIC 100PF 5% 50V
C38	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C41	1-163-227-11	s	CERAMIC 10PF 5% 50V
C42	1-163-253-11	s	CERAMIC CHIP 120PF 5% 50V
C44	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C45	1-131-367-00	s	TANTALUM 22uF 10% 20V
C46	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C49	1-131-367-00	s	TANTALUM 22uF 10% 20V
C50	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C51	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C53	1-135-212-21	s	TANTAL 2.2uF 10% 35V
C58	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C59	1-162-637-11	s	CERAMIC, CHIP 0.47uF 16V
C62	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C66	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C67	1-131-374-00	s	TANTALUM 33uF 10% 16V
C68	1-131-388-00	s	TANTALUM 68uF 10% 6.3V
C70	1-163-011-11	s	CERAMIC, CHIP 0.0015uF 10% 50V
C89	1-163-243-11	s	CERAMIC 47PF 5% 50V
C90	1-162-891-11	s	CERAMIC 0.001uF 10% 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
D1	8-719-800-76	s	DIODE 1SS226
D2	8-719-914-11	s	DIODE HZ4ALL
D3	8-719-800-76	s	DIODE 1SS226
D4	8-719-800-76	s	DIODE 1SS226
D5	8-719-800-76	s	DIODE 1SS226

(SG-152BP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D6	8-719-800-76	s	DIODE 1SS226
D9	8-719-951-12	s	DIODE HZ5BLL
D10	8-719-948-47	s	DIODE HSM88AS
D11	8-719-400-18	s	DIODE MA152WK
D12	8-719-800-76	s	DIODE 1SS226
D13	8-719-910-65	s	DIODE HZ6B2L
D15	8-719-921-12	s	DIODE HZ2BLL
D16	8-719-109-81	s	DIODE RD4.7ES-B2
D17	8-719-800-76	s	DIODE 1SS226
D18	8-719-104-34	s	DIODE 1S2836
D19	8-719-800-76	s	DIODE 1SS226
D20	8-719-400-18	s	DIODE MA152WK
IC1	8-741-104-00	s	IC BX-1040
IC2	8-759-101-12	s	IC UPC311G2
IC3	8-752-335-47	s	IC CXD1216M
IC4	8-759-300-71	s	IC MC14053BF
IC5	8-759-906-54	s	IC TL064CNS
IC6	8-759-038-15	s	IC MC74HC4538AF
IC7	8-752-332-67	s	IC CXD1217M
IC8	8-759-200-79	s	IC TC4049BF
IC9	8-759-204-93	s	IC TC50H001F
IC10	8-759-209-57	s	IC TC4S69F
IC11	8-759-907-21	s	IC CX-7969
IC12	8-759-204-93	s	IC TC50H001F
IC13	8-759-906-54	s	IC TL064CNS
IC14	8-759-632-07	s	IC M5237L
IC15	8-759-300-71	s	IC MC14053BF
IC17	8-759-906-54	s	IC TL064CNS
IC18	8-759-209-57	s	IC TC4S69F
IC19	8-759-209-57	s	IC TC4S69F
IC20	8-759-209-57	s	IC TC4S69F
IC25	8-759-112-66	s	IC UPC812G2
L1	1-408-785-21	s	CHIP 47uH
L2	1-408-785-21	s	CHIP 47uH
L3	1-408-785-21	s	CHIP 47uH
L4	1-408-781-00	s	CHIP 22uH
L5	1-408-781-00	s	CHIP 22uH
L6	1-408-785-21	s	CHIP 47uH
L7	1-408-785-21	s	CHIP 47uH
L8	1-408-785-21	s	CHIP 47uH
L9	1-408-785-21	s	CHIP 47uH
L10	1-408-785-21	s	CHIP 47uH
L11	1-408-780-21	s	INDUCTOR CHIP 18uH
LV1	1-410-619-11	s	INDUCTOR, VAR 220uH
Q1	8-729-216-22	s	TRANSISTOR 2SA1162
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q5	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q6	8-729-216-22	s	TRANSISTOR 2SA1162
Q7	8-729-216-22	s	TRANSISTOR 2SA1162
Q8	8-729-101-07	s	TRANSISTOR 2SB798
Q9	8-729-807-50	s	TRANSISTOR 2SD1623
Q10	8-729-101-07	s	TRANSISTOR 2SB798
Q11	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q12	8-729-101-07	s	TRANSISTOR 2SB798
Q13	8-729-216-22	s	TRANSISTOR 2SA1162

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(SG-152BP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q16	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q19	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q20	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q21	8-729-216-22	s	TRANSISTOR 2SA1162
Q22	8-729-216-22	s	TRANSISTOR 2SA1162
R14	1-216-066-00	s	METAL, CHIP 5.1K 5% 1/10W
R17	1-216-066-00	s	METAL, CHIP 5.1K 5% 1/10W
R22	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R40	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R58	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R59	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R61	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R62	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R63	1-216-688-11	s	METAL, CHIP 36K 0.5% 1/10W
R64	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R65	1-216-693-11	s	METAL, CHIP 56K 0.5% 1/10W
R79	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R80	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R99	1-216-126-11	s	METAL CHIP 1.6M 5% 1/10W
R110	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R137	1-216-697-11	s	METAL, CHIP 82K 0.5% 1/10W
R138	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R139	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R140	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R141	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R147	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R151	1-216-690-11	s	METAL, CHIP 43K 0.5% 1/10W
R153	1-216-104-00	s	METAL 200K 0.50% 1/10W
RV2	1-228-474-00	s	RES, ADJ, METAL 10K
RV3	1-237-037-11	s	RES, ADJ, METAL 20K
RV4	1-237-033-11	s	RES, ADJ, METAL 1K
RV5	1-228-472-00	s	RES, ADJ, METAL 2K
RV6	1-228-475-00	s	RES, ADJ, METAL 20K
RV7	1-228-475-00	s	RES, ADJ, METAL 20K
S2	1-553-925-00	s	SWITCH, DIGITAL
S3	1-570-857-11	s	SWITCH, SLIDE
X1	1-567-654-21	s	OSCILLATOR, CRYSTAL 17.734475MHz

SG-157 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7520-489-A	o	MOUNTED CIRCUIT BOARD, SG-157P
C73	1-163-243-11	s	CERAMIC 47PF 5% 50V
C77	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
CN1	1-565-151-11	o	CONNECTOR, 4P, MALE
CN2	1-566-294-11	o	TERMINAL, PC BOARD 20P
CN3	1-566-294-11	o	TERMINAL, PC BOARD 20P
IC22	8-759-100-94	s	IC UPC358G2
IC23	8-759-300-71	s	IC MC14053BF
IC24	8-759-902-88	s	IC SN74LS123NS
Q24	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R122	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R123	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R124	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R125	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R126	1-216-674-11	s	METAL, CHIP 9.1K 0.5% 1/10W
R127	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R128	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R129	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R130	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R131	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R132	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R133	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R134	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R135	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R136	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
RV8	1-237-037-11	s	RES, ADJ, METAL 20K
S4	1-553-510-00	s	SWITCH, SLIDE

SR-40 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
PD1	8-719-948-58	s	PHOTO SENSOR GP2S07B
PD2	8-719-948-58	s	PHOTO SENSOR GP2S07B
PD3	8-719-948-58	s	PHOTO SENSOR GP2S07B
PD4	8-719-948-58	s	PHOTO SENSOR GP2S07B
1pc	A-6754-072-A	o	MOUNTED CIRCUIT BOARD, SR-40
1pc	1-625-894-11	o	PRINTED CIRCUIT BOARD, FL-53 FLEXIB
Q1	8-729-100-67	s	TRANSISTOR 2SC1623-L7
Q2	8-729-100-67	s	TRANSISTOR 2SC1623-L7
Q3	8-729-100-67	s	TRANSISTOR 2SC1623-L7
Q4	8-729-100-67	s	TRANSISTOR 2SC1623-L7

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

SV-97AP BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6715-438-A	o	MOUNTED CIRCUIT BOARD, SV-97AP
1pc	3-724-715-01	o	PLATE (SV-97), ORNAMENTAL
1pc	3-724-753-01	o	RING
1pc	7-688-001-12	s	W 2, MIDDLE
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
C4	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C5	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C19	1-163-251-11	s	CERAMIC 100PF 5% 50V
C20	1-163-075-00	s	CERAMIC, CHIP 0.047uF 50V
C21	1-163-251-11	s	CERAMIC 100PF 5% 50V
C23	1-163-075-00	s	CERAMIC, CHIP 0.047uF 50V
C25	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C26	1-163-075-00	s	CERAMIC, CHIP 0.047uF 50V
C27	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C28	1-163-075-00	s	CERAMIC, CHIP 0.047uF 50V
C29	1-163-075-00	s	CERAMIC, CHIP 0.047uF 50V
C71	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C73	1-163-229-11	s	CERAMIC 12PF 5% 50V
C74	1-163-229-11	s	CERAMIC 12PF 5% 50V
C82	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C91	1-126-629-11	s	ELECT 27uF 20% 25V
C95	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C97	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C101	1-163-075-00	s	CERAMIC, CHIP 0.047uF 50V
C103	1-126-630-11	s	ELECT 82uF 20% 25V
C105	1-124-943-11	s	ELECT 39 20% 25V
C106	1-163-012-00	s	CERAMIC 0.0018uF 10% 50V
C121	1-163-263-11	s	CERAMIC 330PF 5% 50V
C131	1-163-809-11	s	CERAMIC, CHIP 0.047uF 10% 25V
C135	1-124-943-11	s	ELECT 39 20% 25V
C136	1-163-012-00	s	CERAMIC 0.0018uF 10% 50V
C137	1-163-243-11	s	CERAMIC 47PF 5% 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-566-397-21	o	CONNECTOR, 14P, MALE
D1	8-719-800-76	s	DIODE 1SS226
D2	8-719-800-76	s	DIODE 1SS226
D3	8-719-800-76	s	DIODE 1SS226
D4	8-719-800-76	s	DIODE 1SS226
D5	8-719-123-85	s	DIODE 1SS304
D7	8-719-981-01	s	DIODE ERA81-004
D8	8-719-981-01	s	DIODE ERA81-004
IC1	8-752-814-54	s	IC CXP80116-649Q
IC2	8-759-100-96	s	IC UPC4558G2
IC3	8-759-981-65	s	IC LM2903M
IC4	8-759-100-96	s	IC UPC4558G2
IC5	8-759-100-96	s	IC UPC4558G2
IC6	8-759-100-94	s	IC UPC358G2
IC7	8-759-981-65	s	IC LM2903M
IC9	8-759-300-71	s	IC MC14053BF
IC10	8-759-009-11	s	IC MC14070BF
IC11	8-759-008-82	s	IC MC14013BF
IC12	8-759-009-51	s	IC MC14538BF
IC14	8-759-300-71	s	IC MC14053BF
IC15	8-759-981-65	s	IC LM2903M
IC16	8-759-100-94	s	IC UPC358G2
IC17	8-759-981-65	s	IC LM2903M
IC18	8-759-100-94	s	IC UPC358G2
IC19	8-759-981-65	s	IC LM2903M
IC22	8-759-209-69	s	IC TC4S11F
L1	1-424-055-11	s	COIL, CHOKE
L2	1-424-055-11	s	COIL, CHOKE
L4	1-408-789-21	s	CHIP 100uH
L5	1-408-789-21	s	CHIP 100uH
L6	1-421-801-11	s	COIL, CHOKE 60uH
Q1	8-729-117-32	s	TRANSISTOR 2SC4177
Q2	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q3	8-729-209-01	s	TRANSISTOR 2SB907
Q4	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q5	8-729-807-50	s	TRANSISTOR 2SD1623
Q6	8-729-209-01	s	TRANSISTOR 2SB907
Q7	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q8	8-729-807-50	s	TRANSISTOR 2SD1623
Q9	8-729-901-46	s	TRANSISTOR DTA114YK
Q10	8-729-905-18	s	TRANSISTOR DTC144EU
R1	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R2	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R3	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R4	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R5	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R6	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R7	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R8	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R9	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R10	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R11	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R12	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R13	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R14	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R15	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R16	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R17	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R21	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R22	1-216-851-11	s	METAL, CHIP 330K 5% 1/16W
R23	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R24	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R29	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R30	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R31	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R32	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R33	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R34	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W -
R35	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R36	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R37	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R38	1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
R39	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R40	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R43	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R44	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R45	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R46	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R48	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R50	1-216-864-11	s	METAL, CHIP 0-OHM
R51	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R52	1-216-851-11	s	METAL, CHIP 330K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(SV-97AP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R53	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R54	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R55	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R56	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R57	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R58	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R59	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R60	1-216-847-11	s	METAL, CHIP 150K 5% 1/16W
R61	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R62	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R63	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R64	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R65	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R66	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R67	1-216-846-11	s	METAL, CHIP 120K 5% 1/16W
R68	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R69	1-216-854-11	s	METAL, CHIP 560K 5% 1/16W
R70	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R71	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R72	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R74	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R75	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R81	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R82	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R83	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R84	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R85	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R87	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R88	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R89	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R90	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R91	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R92	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R93	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R101	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R102	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R103	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R104	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R105	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R106	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R107	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R108	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R109	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R110	1-216-843-11	s	METAL, CHIP 68K 5% 1/16W
R111	1-216-836-11	s	METAL, CHIP 18K 5% 1/16W
R112	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R113	1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
R114	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R115	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R116	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R121	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R122	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R123	1-216-854-11	s	METAL, CHIP 560K 5% 1/16W
R124	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R125	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R131	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R132	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R133	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R134	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(SV-97AP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R135	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R136	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R137	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R138	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R139	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R140	1-216-843-11	s	METAL, CHIP 68K 5% 1/16W
R141	1-216-836-11	s	METAL, CHIP 18K 5% 1/16W
R142	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R143	1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
R144	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R145	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R146	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R151	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R152	1-216-864-11	s	METAL, CHIP 0-OHM
R153	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R154	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R155	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R156	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R157	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R158	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R159	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R160	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R161	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R162	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R163	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R164	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R165	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R166	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R167	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R168	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R169	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R170	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R171	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R172	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R173	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R174	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R175	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R176	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R177	1-216-864-11	s	METAL, CHIP 0-OHM
R178	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R180	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R181	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R182	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R183	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R184	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R185	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R186	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R187	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R188	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R189	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R190	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R191	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R192	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R193	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R194	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R195	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R196	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R197	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R198	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W

(SV-97AP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R199	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R301	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R302	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
RV1	1-230-871-11	s	RES, ADJ, METAL 22K
RV2	1-230-871-11	s	RES, ADJ, METAL 22K
RV3	1-230-875-21	s	RES, ADJ, METAL 220K
RV4	1-230-875-21	s	RES, ADJ, METAL 220K
RV5	1-230-875-21	s	RES, ADJ, METAL 220K
RV6	1-230-873-11	s	RES, ADJ, METAL 47K
RV7	1-230-875-21	s	RES, ADJ, METAL 220K
X1	1-577-076-11	s	CRYSTAL, 16.000MHz

SW-220 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7520-307-A	o	MOUNTED CIRCUIT BOARD, SW-220
1pc	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
1pc	1-563-869-11	o	CONTACT, FEMALE, AWG26-30
CN1	1-562-150-11	s	HOUSING, 5P
CN2	1-506-475-11	o	CONNECTOR, 10P, MALE
CN2	1-562-743-11	o	HOUSING, 10P
CN54	1-563-876-11	o	HOUSING, 16P
D1	8-719-820-58	s	DIODE 1SS177
D2	8-719-820-58	s	DIODE 1SS177
S1	1-554-355-00	s	SWITCH, TOGGLE
S2	1-554-400-00	s	SWITCH, TOGGLE
S3	1-554-400-00	s	SWITCH, TOGGLE
S4	1-554-356-00	s	SWITCH, TOGGLE
S5	1-553-856-00	s	SWITCH, TACTILE

SW-291 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-625-555-11	o	PRINTED CIRCUIT BOARD, SW-291
CN1	1-506-481-11	o	CONNECTOR, 2P, MALE
D1	8-719-902-27	s	LED EBR3402S, RED
SW1	1-570-608-11	s	SWITCH, TOGGLE

SW-357 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-629-570-11	o	PRINTED CIRCUIT BOARD, SW-357
CN1	1-506-484-11	o	CONNECTOR, 5P, MALE
CN2	1-506-482-11	o	CONNECTOR, 3P, MALE
R1	1-249-405-11	s	CARBON 100 5% 1/4W
S1	1-554-395-00	s	SWITCH, TOGGLE
S2	1-554-396-00	s	SWITCH, TOGGLE
S3	1-570-282-21	s	SWITCH, KEY BOARD

SW-562 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-564-832-11	o	CONTACT
1pc	1-580-579-11	o	HOUSING, 6P
1pc	1-580-599-11	o	CONTACT, FEMALE, AWG26-30
1pc	1-643-709-11	o	PRINTED CIRCUIT BOARD, SW-562
CN2	1-565-149-11	o	PIN, CONNECTOR (ANGLE) 2P
D1	8-719-800-76	s	DIODE 1SS226
S1	1-570-984-11	s	SWITCH, TOGGLE
S2	1-570-985-11	s	SWITCH, TOGGLE
S3	1-570-985-11	s	SWITCH, TOGGLE

SW-563 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-643-714-11	o	PRINTED CIRCUIT BOARD, SW-563
CN904	1-565-151-11	o	CONNECTOR, 4P, MALE
IC1	8-759-701-01	s	IC NJM2904M
R1	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R2	1-216-100-00	s	METAL 130K 5% 1/10W
R3	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R4	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R5	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R6	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
S1	1-692-128-11	s	SWITCH, ROTARY

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

SY-117C BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6717-577-A	o	MOUNTED CIRCUIT BOARD, SY-117CP
1pc	3-724-714-01	o	PLATE (SY-117), ORNAMENTAL
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-688-001-12	s	W 2, MIDDLE
C4	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C5	1-126-401-11	s	ELECT, CHIP 1uF 20% 50V
C6	1-126-398-11	s	ELECT, CHIP 4.7uF 20% 35V
C7	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C8	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C11	1-127-491-00	s	ELECTSOLID 20 10V
C12	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C13	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C14	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C15	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C16	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C17	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C18	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-566-388-11	s	CONNECTOR, 8P, MALE
D1	8-719-123-85	s	DIODE 1SS304
IC1	8-752-815-64	s	IC CXP80116-668Q
IC3	8-759-009-51	s	IC MC14538BF
IC4	8-759-940-45	s	IC S-8054HN-CB
IC5	8-759-925-80	s	IC SN74HC14NS
IC6	8-759-927-29	s	IC SN74HCU04ANS
IC7	8-759-927-46	s	IC SN74HC00ANS
Q1	8-729-905-18	s	TRANSISTOR DTC144EU
Q2	8-729-905-12	s	TRANSISTOR DTA144EU
Q3	8-729-907-00	s	TRANSISTOR DTC114EU
Q4	8-729-907-00	s	TRANSISTOR DTC114EU
Q5	8-729-907-00	s	TRANSISTOR DTC114EU
Q6	8-729-905-18	s	TRANSISTOR DTC144EU
Q7	8-729-905-18	s	TRANSISTOR DTC144EU
Q8	8-729-117-32	s	TRANSISTOR 2SC4177
Q9	8-729-907-00	s	TRANSISTOR DTC114EU
R1	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R2	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R3	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R4	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R5	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R6	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R7	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R8	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R9	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R10	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R11	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R12	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R13	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R14	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R15	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R16	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R17	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R18	1-216-864-11	s	METAL, CHIP 0-OHM
R29	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R30	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R31	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R32	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R33	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R34	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R35	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R36	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R37	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R38	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R39	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R40	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R43	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R44	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R45	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R46	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R47	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R48	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R49	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R50	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R51	1-218-303-11	s	METAL, CHIP 10K 1% 1/16W
R52	1-218-306-11	s	METAL CHIP 100K 1% 1/16W
R53	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R54	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R55	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R56	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R57	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R58	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R59	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R60	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R61	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R62	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R63	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R64	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R65	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R66	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R67	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R68	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R69	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R70	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R71	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R72	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R73	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R74	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R75	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R76	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R77	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R78	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R79	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R80	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R81	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R82	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R83	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R84	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R85	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R86	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R87	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R88	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R89	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R90	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R91	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(SY-117C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R92	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R93	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R94	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R95	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R96	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R97	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R98	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R100	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R102	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R103	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
R104	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R105	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R106	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R107	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R201	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R203	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R205	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R207	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R211	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R213	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R215	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R217	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R219	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R221	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R223	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R225	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R226	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R227	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
S1	1-570-374-12	s	SWITCH, SLIDE
X1	1-567-962-11	s	CRYSTAL 8MHz

TB-5 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6725-604-A	o	MOUNTED CIRCUIT BOARD, TB-5
1pc	3-729-013-41	s	SCREW(M1.4X3.5),WASHERHEAD(+P)
C1	1-163-011-11	s	CERAMIC, CHIP 0.0015uF 10% 50V
C2	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C3	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C4	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C5	1-163-263-11	s	CERAMIC 330PF 5% 50V
C6	1-163-217-11	s	CERAMIC 1PF 0.25PF 50V
C7	1-163-217-11	s	CERAMIC 1PF 0.25PF 50V
C11	1-163-011-11	s	CERAMIC, CHIP 0.0015uF 10% 50V
C12	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C13	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C14	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C16	1-163-217-11	s	CERAMIC 1PF 0.25PF 50V
C17	1-163-217-11	s	CERAMIC 1PF 0.25PF 50V
C27	1-163-139-00	s	CERAMIC, CHIP 820PF 5% 50V
C45	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C46	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C51	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
CN1	1-506-730-11	o	CONNECTOR, 40P, MALE
CN2	1-566-526-11	s	CONNECTOR, 10P
CN3	1-565-339-11	s	CONNECTOR, 10P, FEMALE
CN4	1-566-523-11	s	CONNECTOR, 7P
CN5	1-566-521-11	s	CONNECTOR, 5P
CN6	1-506-471-11	o	CONNECTOR, 6P, MALE
CN7	1-565-340-11	s	CONNECTOR, 6P, FEMALE
D21	8-719-123-85	s	DIODE 1SS304
D51	8-719-106-88	s	DIODE RD15M-B1
FB1	1-543-309-21	s	BEAD, FERRITE
FB2	1-543-309-21	s	BEAD, FERRITE
IC1	8-759-111-56	s	IC UPC4572G2
IC2	8-759-906-53	s	IC TL062CPS
IC21	8-759-209-15	s	IC TC4SU69F
IC22	8-759-300-71	s	IC MC14053BF
IC23	8-759-111-56	s	IC UPC4572G2
Q21	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q22	8-729-117-32	s	TRANSISTOR 2SC4177
Q23	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q51	8-729-106-68	s	TRANSISTOR 2SC1615A-GP
Q52	8-729-109-44	s	TRANSISTOR 2SK94
RV1	1-228-475-00	s	RES, ADJ, METAL 20K
RV2	1-228-475-00	s	RES, ADJ, METAL 20K
RV11	1-228-475-00	s	RES, ADJ, METAL 20K
RV12	1-228-475-00	s	RES, ADJ, METAL 20K

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

TC-48AP/48BP BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6713-372-A	o	MOUNTED CIRCUIT BOARD, TC-48AP Serial No. Up to 40315
1pc	A-8271-734-A	o	MOUNTED CIRCUIT BOARD, TC-48BP Serial No. 40316 AND HIGHER
BT1	1-528-292-11	o	BATTERY, SUPER LITHIUM
C1	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C3	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C4	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C6	1-126-412-11	s	ELECT 220uF 20% 4V
C7	1-126-402-11	s	ELECT, CHIP 2.2uF 20% 50V
C10	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C103	1-126-403-11	s	ELECT 3.3uF 20% 50V
C104	1-126-405-11	s	ELECT 10uF 20% 50V
C105	1-126-405-11	s	ELECT 10uF 20% 50V
C106	1-163-227-11	s	CERAMIC 10PF 5% 50V
C107	1-163-227-11	s	CERAMIC 10PF 5% 50V
C110	1-163-243-11	s	CERAMIC 47PF 5% 50V
C112	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C115	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C203	1-126-403-11	s	ELECT 3.3uF 20% 50V
C204	1-126-405-11	s	ELECT 10uF 20% 50V
C205	1-126-405-11	s	ELECT 10uF 20% 50V
C206	1-163-227-11	s	CERAMIC 10PF 5% 50V
C207	1-163-227-11	s	CERAMIC 10PF 5% 50V
C210	1-163-243-11	s	CERAMIC 47PF 5% 50V
C212	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C215	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C301	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C303	1-163-251-11	s	CERAMIC 100PF 5% 50V
C304	1-135-180-21	s	TANTAL 3.3uF 20% 6.3V
C307	1-135-180-21	s	TANTAL 3.3uF 20% 6.3V
C401	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C403	1-163-251-11	s	CERAMIC 100PF 5% 50V
C404	1-135-180-21	s	TANTAL 3.3uF 20% 6.3V
C407	1-135-180-21	s	TANTAL 3.3uF 20% 6.3V
C520	1-125-447-11	s	DOUBLE LAYERS 1FARAD 5.5V
C524	1-163-235-11	s	CERAMIC 22PF 5% 50V
C525	1-163-235-11	s	CERAMIC 22PF 5% 50V
C526	1-163-239-11	s	CERAMIC 33PF 5% 50V
C527	1-163-239-11	s	CERAMIC 33PF 5% 50V
C528	1-163-229-11	s	CERAMIC 12PF 5% 50V
C529	1-163-245-11	s	CERAMIC 56PF 5% 50V
C530	1-163-229-11	s	CERAMIC 12PF 5% 50V
C531	1-163-229-11	s	CERAMIC 12PF 5% 50V
C549	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C553	1-163-243-11	s	CERAMIC 47PF 5% 50V
C566	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C567	1-124-471-00	s	ELECT 1000uF 20% 6.3V
C570	1-127-485-00	s	ELECT(SOLID) 33uF 20% 6.3V
CN1	1-566-528-21	s	CONNECTOR, FPC (ZIF) 12P Serial No. Up to 40315
	1-695-903-21	s	CONNECTOR 12P Serial No. 40316 AND HIGHER
CN2	1-566-536-11	s	CONNECTOR, 20P
CN3	1-566-536-11	s	CONNECTOR, 20P
CN10	1-506-485-11	o	CONNECTOR, 6P, MALE
CN11	1-506-481-11	o	CONNECTOR, 2P, MALE
D101	8-719-800-76	s	DIODE 1SS226

(TC-48AP/48BP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D102	8-719-800-76	s	DIODE 1SS226
D103	8-719-941-23	s	DIODE DA204U
D104	8-719-123-85	s	DIODE 1SS304
D201	8-719-800-76	s	DIODE 1SS226
D202	8-719-800-76	s	DIODE 1SS226
D203	8-719-941-23	s	DIODE DA204U
D301	8-719-941-23	s	DIODE DA204U
D401	8-719-941-23	s	DIODE DA204U
D508	8-719-938-72	s	DIODE SB01-05CP
D511	8-719-941-86	s	DIODE DAN202U
D514	8-719-941-86	s	DIODE DAN202U
D515	8-719-941-86	s	DIODE DAN202U
D522	8-719-902-27	s	LED EBR3402S, RED
D523	8-719-941-86	s	DIODE DAN202U
D524	8-719-938-72	s	DIODE SB01-05CP
D525	8-719-938-72	s	DIODE SB01-05CP
D526	8-719-123-85	s	DIODE 1SS304
D527	8-719-123-85	s	DIODE 1SS304
D528	8-719-123-85	s	DIODE 1SS304
D529	8-719-123-85	s	DIODE 1SS304
D530	8-719-938-72	s	DIODE SB01-05CP
IC1	8-759-700-50	s	IC NJM386M
IC1	8-759-942-44	s	IC CXD1128Q
IC101	8-759-981-54	s	IC RC2041MD
IC102	8-759-981-54	s	IC RC2041MD
IC103	8-759-908-16	s	IC TL072CPS
IC201	8-759-981-54	s	IC RC2041MD
IC202	8-759-981-54	s	IC RC2041MD
IC203	8-759-908-16	s	IC TL072CPS
IC301	8-759-300-71	s	IC MC14053BF
IC302	8-759-906-53	s	IC TL062CPS
IC303	8-759-908-16	s	IC TL072CPS
IC401	8-759-300-71	s	IC MC14053BF
IC403	8-759-908-16	s	IC TL072CPS
IC501	8-759-944-79	s	IC CXD1132Q
IC502	8-759-146-73	s	IC CXD8042Q-502
IC503	8-752-810-17	s	IC CXP80116-617Q
IC504	8-759-112-06	s	IC UPC78N05H
IC505	8-759-511-37	s	IC RH5VA28CA
IC506	8-759-008-82	s	IC MC14013BF
IC507	8-759-009-12	s	IC MC14071BF
IC508	8-759-300-71	s	IC MC14053BF
IC509	8-759-009-02	s	IC MC14046BF
IC510	8-759-008-36	s	IC MC74HC4049F
IC511	8-759-009-10	s	IC MC14069UBF
IC512	8-759-008-82	s	IC MC14013BF
IC513	8-759-009-51	s	IC MC14538BF
IC514	8-759-209-15	s	IC TC4SU69F
IC515	8-752-330-59	s	IC CXK1011P
IC516	1-808-502-11	s	LCD MODULE LT4115
IC517	8-759-009-12	s	IC MC14071BF
IC518	8-759-939-41	s	IC S-81230AG-RB
IC519	8-759-209-15	s	IC TC4SU69F
IC520	8-759-209-97	s	IC TC4S81F
IC521	8-759-209-54	s	IC TC4S01F
IC522	8-759-209-15	s	IC TC4SU69F
IC523	8-759-209-90	s	IC TC4S71F
IC701	8-759-701-01	s	IC NJM2904M
IC702	8-759-908-16	s	IC TL072CPS

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(TC-48AP/48BP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC703	8-759-939-41	s	IC S-81230AG-RB
L1	1-410-729-21	s	INDUCTOR, CHIP 1mH
L101	1-408-776-00	s	INDUCTOR CHIP 8.2uH
L102	1-408-776-00	s	INDUCTOR CHIP 8.2uH
L201	1-408-776-00	s	INDUCTOR CHIP 8.2uH
L202	1-408-776-00	s	INDUCTOR CHIP 8.2uH
PH1	1-808-252-11	s	PHOTOCOUPLER M-30
Q101	8-729-271-31	s	TRANSISTOR 2SC2713G
Q102	8-729-117-32	s	TRANSISTOR 2SC4177
Q103	8-729-905-18	s	TRANSISTOR DTC144EU
Q104	8-729-117-32	s	TRANSISTOR 2SC4177
Q105	8-729-117-32	s	TRANSISTOR 2SC4177
Q106	8-729-117-32	s	TRANSISTOR 2SC4177
Q107	8-729-117-32	s	TRANSISTOR 2SC4177
Q201	8-729-271-31	s	TRANSISTOR 2SC2713G
Q202	8-729-117-32	s	TRANSISTOR 2SC4177
Q203	8-729-905-18	s	TRANSISTOR DTC144EU
Q204	8-729-117-32	s	TRANSISTOR 2SC4177
Q205	8-729-117-32	s	TRANSISTOR 2SC4177
Q206	8-729-117-32	s	TRANSISTOR 2SC4177
Q207	8-729-117-32	s	TRANSISTOR 2SC4177
Q501	8-729-905-18	s	TRANSISTOR DTC144EU
Q502	8-729-905-18	s	TRANSISTOR DTC144EU
Q503	8-729-907-00	s	TRANSISTOR DTC114EU
Q504	8-729-905-18	s	TRANSISTOR DTC144EU
Q509	8-729-905-18	s	TRANSISTOR DTC144EU
Q510	8-729-106-68	s	TRANSISTOR 2SC1615A-GP
Q511	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q512	8-729-905-18	s	TRANSISTOR DTC144EU
Q701	8-729-905-18	s	TRANSISTOR DTC144EU
Q702	8-729-117-32	s	TRANSISTOR 2SC4177
R1	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R3	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R101	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R102	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R103	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R104	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R105	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R106	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R107	1-216-631-11	s	METAL, CHIP 150 0.5% 1/10W
R108	1-216-631-11	s	METAL, CHIP 150 0.5% 1/10W
R110	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R111	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R112	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R113	1-216-638-11	s	METAL, CHIP 300 0.5% 1/10W
R114	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R115	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R116	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R117	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R118	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R119	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R120	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R121	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R123	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R125	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R126	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R128	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W

(TC-48AP/48BP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R129	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R130	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R131	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R132	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R133	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R135	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R136	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R137	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R138	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R139	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R140	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R141	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R143	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R201	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R202	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R203	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R204	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R205	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R206	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R207	1-216-631-11	s	METAL, CHIP 150 0.5% 1/10W
R208	1-216-631-11	s	METAL, CHIP 150 0.5% 1/10W
R210	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R211	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R212	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R213	1-216-638-11	s	METAL, CHIP 300 0.5% 1/10W
R214	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R215	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R216	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R217	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R218	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R219	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R220	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R221	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R223	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R225	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R226	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R228	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R229	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R230	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R231	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R232	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R233	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R235	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R236	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R237	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R238	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R239	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R240	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R241	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R243	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R303	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R306	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R310	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R313	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R403	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R406	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R410	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R413	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R505	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(TC-48AP/48BP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R506	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R507	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R515	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R521	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R523	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R538	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R542	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R543	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R605	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R611	1-249-397-11	s	CARBON 22 5% 1/4W
R612	1-249-397-11	s	CARBON 22 5% 1/4W
R617	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R618	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R619	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R623	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R626	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R629	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R630	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R631	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R632	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R639	1-249-397-11	s	CARBON 22 5% 1/4W
R641	1-249-393-11	s	CARBON 10 5% 1/4W
R642	1-249-393-11	s	CARBON 10 5% 1/4W
R644	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R653	1-247-895-00	s	CARBON 470K 5% 1/4W
R701	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R703	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R708	1-216-668-11	s	METAL, CHIP 5.1K 0.5% 1/10W
R709	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R711	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R712	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R714	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R717	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R719	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
RV101	1-230-337-11	s	RES, VAR, CARBON 10K
RV201	1-230-337-11	s	RES, VAR, CARBON 10K
RV301	1-230-871-11	s	RES, ADJ, METAL 22K
RV302	1-230-871-11	s	RES, ADJ, METAL 22K
RV401	1-230-871-11	s	RES, ADJ, METAL 22K
RV402	1-230-871-11	s	RES, ADJ, METAL 22K
RV701	1-230-874-11	s	RES, ADJ, METAL 100K
RV702	1-230-869-11	s	RES, ADJ, METAL 4.7K
S101	1-571-087-11	s	SWITCH, SLIDE
S102	1-570-848-11	s	SWITCH, SLIDE
S103	1-571-275-11	s	SWITCH, SLIDE
S201	1-571-087-11	s	SWITCH, SLIDE
S202	1-570-848-11	s	SWITCH, SLIDE
S203	1-571-275-11	s	SWITCH, SLIDE
S501	1-570-834-11	s	SWITCH, SLIDE
S502	1-570-834-11	s	SWITCH, SLIDE
S503	1-570-472-11	s	SWITCH, KEY BOARD
S504	1-570-472-11	s	SWITCH, KEY BOARD
S505	1-570-472-11	s	SWITCH, KEY BOARD
S506	1-570-472-11	s	SWITCH, KEY BOARD
S508	1-570-834-11	s	SWITCH, SLIDE
S509	1-570-866-11	s	SWITCH, SLIDE
S510	1-570-860-11	s	SWITCH, SLIDE
S511	1-571-275-11	s	SWITCH, SLIDE

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(TC-48AP/48BP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
S513	1-570-472-11	s	SWITCH, KEY BOARD
S514	1-570-860-11	s	SWITCH, SLIDE
S515	1-571-273-11	s	SWITCH, DIGITAL
S516	1-571-273-11	s	SWITCH, DIGITAL
S517	1-571-275-11	s	SWITCH, SLIDE
S518	1-571-275-11	s	SWITCH, SLIDE
S701	1-570-855-11	s	SWITCH, SLIDE
X501	1-567-867-11	s	CRYSTAL, 14.500MHz
X502	1-567-812-11	s	RESONATOR, CERAMIC 12.288MHz
X503	1-578-741-11	s	VIBRATOR, CRYSTAL 31.25KHz
X504	1-577-076-11	s	CRYSTAL, 16.000MHz

VA-104 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7515-147-A	o	MOUNTED CIRCUIT BOARD, VA-104
2pcs	1-568-613-11	o	CONNECTOR, FEMAIL, 2P
1pc	3-724-711-02	o	PLATE (VA-62), ORNAMENTAL
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-688-001-12	s	W 2, MIDDLE
3pcs	3-621-124-00	s	SPACER
1pc	3-172-056-02	o	PARTITION
2pcs	7-623-952-21	s	WASHER 2.0, FIBER
C1	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C10	1-131-395-00	s	TANTALUM 100uF 10% 3.15V
C12	1-126-320-11	s	ELECT, NONPOLAR 10uF 20% 16V
C16	1-163-241-11	s	CERAMIC, CHIP 39PF 5% 50V
C21	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C23	1-163-235-11	s	CERAMIC 22PF 5% 50V
C24	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C33	1-131-395-00	s	TANTALUM 100uF 10% 3.15V
C35	1-126-320-11	s	ELECT, NONPOLAR 10uF 20% 16V
C39	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C40	1-163-243-11	s	CERAMIC 47PF 5% 50V
C45	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C47	1-163-235-11	s	CERAMIC 22PF 5% 50V
C48	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C57	1-131-395-00	s	TANTALUM 100uF 10% 3.15V
C59	1-126-320-11	s	ELECT, NONPOLAR 10uF 20% 16V
C64	1-163-243-11	s	CERAMIC 47PF 5% 50V
C69	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C71	1-163-235-11	s	CERAMIC 22PF 5% 50V
C89	1-163-227-11	s	CERAMIC 10PF 5% 50V
C90	1-163-134-00	s	CERAMIC 510PF 5% 50V
C91	1-163-130-00	s	CERAMIC 360PF 5% 50V
C92	1-163-134-00	s	CERAMIC 510PF 5% 50V
C93	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C114	1-163-809-11	s	CERAMIC, CHIP 0.047uF 10% 25V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CV1	1-141-448-21	s	CAP, ADJ
CV2	1-141-448-21	s	CAP, ADJ
CV3	1-141-370-11	s	CAP, CHIP TRIMMER
D1	8-719-800-76	s	DIODE 1SS226
D2	8-719-800-76	s	DIODE 1SS226
D3	8-719-948-47	s	DIODE HSM88AS
D5	8-719-800-76	s	DIODE 1SS226
D6	8-719-948-47	s	DIODE HSM88AS
D7	8-719-800-76	s	DIODE 1SS226
D9	8-719-800-76	s	DIODE 1SS226
D10	8-719-948-47	s	DIODE HSM88AS
D14	8-719-948-47	s	DIODE HSM88AS
D15	8-719-948-47	s	DIODE HSM88AS
D16	8-719-948-47	s	DIODE HSM88AS
D17	8-719-400-18	s	DIODE MA152WK
DL1	1-415-754-11	s	DELAY LINE
FL1	1-409-427-11	s	FILTER, TRAP 14.3MHz
FL2	1-409-427-11	s	FILTER, TRAP 14.3MHz
FL3	1-409-427-11	s	FILTER, TRAP 14.3MHz
IC1	8-759-988-42	s	IC AD707JR
IC2	1-807-415-11	s	IC BH-1210

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VA-104 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC3	1-808-806-11	s	IC BH-1262
IC4	8-759-906-54	s	IC TL064CNS
IC5	8-759-988-42	s	IC AD707JR
IC6	1-807-415-11	s	IC BH-1210
IC7	1-808-806-11	s	IC BH-1262
IC8	8-759-988-42	s	IC AD707JR
IC9	1-807-415-11	s	IC BH-1210
IC10	1-808-806-11	s	IC BH-1262
IC12	8-759-300-71	s	IC MC14053BF
IC13	8-759-906-53	s	IC TL062CPS
IC15	1-809-026-11	s	IC BH-1263
IC16	8-759-209-57	s	IC TC4S69F
IC17	8-759-234-20	s	IC TC7S08F
Q1	8-729-403-32	s	TRANSISTOR XN6534
Q2	8-729-403-29	s	TRANSISTOR XN6435
Q3	8-729-403-29	s	TRANSISTOR XN6435
Q4	8-729-403-29	s	TRANSISTOR XN6435
Q5	8-729-109-44	s	TRANSISTOR 2SK94
Q6	8-729-109-44	s	TRANSISTOR 2SK94
Q7	8-729-109-44	s	TRANSISTOR 2SK94
Q8	8-729-109-44	s	TRANSISTOR 2SK94
Q9	8-729-109-44	s	TRANSISTOR 2SK94
Q10	8-729-109-44	s	TRANSISTOR 2SK94
Q11	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q12	8-729-122-63	s	TRANSISTOR 2SA1226
Q13	8-729-403-29	s	TRANSISTOR XN6435
Q14	8-729-403-29	s	TRANSISTOR XN6435
Q15	8-729-403-29	s	TRANSISTOR XN6435
Q16	8-729-109-44	s	TRANSISTOR 2SK94
Q17	8-729-109-44	s	TRANSISTOR 2SK94
Q18	8-729-109-44	s	TRANSISTOR 2SK94
Q19	8-729-109-44	s	TRANSISTOR 2SK94
Q20	8-729-109-44	s	TRANSISTOR 2SK94
Q21	8-729-109-44	s	TRANSISTOR 2SK94
Q22	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q23	8-729-403-32	s	TRANSISTOR XN6534
Q24	8-729-403-29	s	TRANSISTOR XN6435
Q25	8-729-403-29	s	TRANSISTOR XN6435
Q26	8-729-403-29	s	TRANSISTOR XN6435
Q27	8-729-109-44	s	TRANSISTOR 2SK94
Q28	8-729-109-44	s	TRANSISTOR 2SK94
Q29	8-729-109-44	s	TRANSISTOR 2SK94
Q30	8-729-109-44	s	TRANSISTOR 2SK94
Q31	8-729-109-44	s	TRANSISTOR 2SK94
Q32	8-729-109-44	s	TRANSISTOR 2SK94
Q33	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q34	8-729-216-22	s	TRANSISTOR 2SA1162
Q35	8-729-216-22	s	TRANSISTOR 2SA1162
Q36	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q45	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q48	8-729-109-44	s	TRANSISTOR 2SK94
Q49	8-729-216-22	s	TRANSISTOR 2SA1162
Q50	8-729-216-22	s	TRANSISTOR 2SA1162
Q51	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q52	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q53	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q54	8-729-403-29	s	TRANSISTOR XN6435
R1	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W

(VA-104 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R4	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R5	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R6	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R8	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R9	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R11	1-216-670-11	s	METAL, CHIP 6.2K 0.5% 1/10W
R16	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R17	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R18	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R19	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R21	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R22	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R24	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R34	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R39	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R44	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R45	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R47	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R48	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R49	1-216-642-11	s	METAL, CHIP 430 0.5% 1/10W
R50	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R51	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R52	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R53	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R55	1-216-670-11	s	METAL, CHIP 6.2K 0.5% 1/10W
R60	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R61	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R62	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R63	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R65	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R66	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R68	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R78	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R85	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R90	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R91	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R94	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R95	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R96	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R98	1-216-662-11	s	METAL, CHIP 3K 0.5% 1/10W
R99	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R101	1-216-670-11	s	METAL, CHIP 6.2K 0.5% 1/10W
R106	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R107	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R108	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R109	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R111	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R112	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R114	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R126	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R131	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R136	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R173	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R174	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R175	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R181	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R182	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R183	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R187	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VA-104 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R191	1-216-102-00	s	METAL 160K 0.50% 1/10W
R193	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R211	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R212	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R213	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R214	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R215	1-216-651-11	s	METAL, CHIP 1K 1% 1/6W
RV1	1-228-472-00	s	RES, ADJ, METAL 2K
RV2	1-237-037-11	s	RES, ADJ, METAL 20K
RV3	1-237-036-11	s	RES, ADJ, METAL 10K
RV4	1-228-475-00	s	RES, ADJ, METAL 20K
RV5	1-228-472-00	s	RES, ADJ, METAL 2K
RV6	1-237-037-11	s	RES, ADJ, METAL 20K
RV7	1-237-036-11	s	RES, ADJ, METAL 10K
RV8	1-228-475-00	s	RES, ADJ, METAL 20K
RV9	1-228-472-00	s	RES, ADJ, METAL 2K
RV10	1-237-037-11	s	RES, ADJ, METAL 20K
RV11	1-237-036-11	s	RES, ADJ, METAL 10K
RV12	1-228-475-00	s	RES, ADJ, METAL 20K
RV15	1-237-034-11	s	RES, ADJ, METAL 2K
RV16	1-237-034-11	s	RES, ADJ, METAL 2K
RV17	1-237-034-11	s	RES, ADJ, METAL 2K
RV18	1-237-036-11	s	RES, ADJ, METAL 10K
RV19	1-237-036-11	s	RES, ADJ, METAL 10K
RV20	1-237-036-11	s	RES, ADJ, METAL 10K
RV21	1-237-037-11	s	RES, ADJ, METAL 20K
RV22	1-237-037-11	s	RES, ADJ, METAL 20K
S1	1-570-857-11	s	SWITCH, SLIDE
S2	1-572-446-21	s	SWITCH, ROTARY

VDA-11P BOARD (Serial No. 40001 through 41567)

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6711-993-A	o	MOUNTED CIRCUIT BOARD, VDA-11P
1pc	3-724-707-01	o	PLATE (VDA-11), ORNAMENTAL
1pc	3-724-753-01	o	RING
1pc	7-688-001-12	s	W 2, MIDDLE
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
C1	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C2	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C4	1-163-235-11	s	CERAMIC 22PF 5% 50V
C5	1-163-243-11	s	CERAMIC 47PF 5% 50V
C6	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C8	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C11	1-163-239-11	s	CERAMIC 33PF 5% 50V
C16	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C17	1-163-251-11	s	CERAMIC 100PF 5% 50V
C107	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C108	1-163-243-11	s	CERAMIC 47PF 5% 50V
C110	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C116	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C201	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C202	1-163-120-00	s	CERAMIC, CHIP 130PF 5% 50V
C203	1-135-164-21	s	TANTAL 22uF 20% 10V
C205	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C207	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C209	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C210	1-163-251-11	s	CERAMIC 100PF 5% 50V
C212	1-163-120-00	s	CERAMIC, CHIP 130PF 5% 50V
C213	1-163-243-11	s	CERAMIC 47PF 5% 50V
C214	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C217	1-163-243-11	s	CERAMIC 47PF 5% 50V
C219	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C220	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C221	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C225	1-163-245-11	s	CERAMIC 56PF 5% 50V
C226	1-163-245-11	s	CERAMIC 56PF 5% 50V
C227	1-135-164-21	s	TANTAL 22uF 20% 10V
C228	1-163-227-11	s	CERAMIC 10PF 5% 50V
C229	1-163-227-11	s	CERAMIC 10PF 5% 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-566-388-11	s	CONNECTOR, 8P, MALE
CNJ2	1-565-413-11	o	PLUG, SHORTING
CV1	1-141-423-61	s	CAP, ADJ
CV2	1-141-423-61	s	CAP, ADJ
CV3	1-141-423-61	s	CAP, ADJ
CV4	1-141-423-61	s	CAP, ADJ
CV11	1-141-423-61	s	CAP, ADJ
CV12	1-141-423-61	s	CAP, ADJ
CV13	1-141-423-61	s	CAP, ADJ
CV14	1-141-423-61	s	CAP, ADJ
D201	8-719-123-85	s	DIODE 1SS304
D301	8-719-105-82	s	DIODE RD5.1M-B2
FL1	1-236-021-11	s	FILTER, LOW-PASS
FL2	1-236-126-12	s	FILTER, LOW PASS
FL202	1-236-621-11	s	FILTER, LOW PASS
FL203	1-236-621-11	s	FILTER, LOW PASS
IC1	8-759-209-15	s	IC TC4SU69F
IC2	8-741-152-41	s	IC SBX1524-21

(VDA-11P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC3	8-759-209-15	s	IC TC4SU69F
IC101	8-759-209-15	s	IC TC4SU69F
IC201	8-741-152-32	s	IC SBX1523-03
IC301	8-759-230-99	s	IC TC74HC4053AF
L1	1-408-789-21	s	CHIP 100uH
L2	1-408-789-21	s	CHIP 100uH
L3	1-408-777-00	s	CHIP 10uH
L4	1-408-785-21	s	CHIP 47uH
L101	1-408-789-21	s	CHIP 100uH
L103	1-408-797-11	s	CHIP 470uH
L104	1-408-797-11	s	CHIP 470uH
L105	1-408-789-21	s	CHIP 100uH
L106	1-408-789-21	s	CHIP 100uH
L202	1-408-789-21	s	CHIP 100uH
L203	1-408-785-21	s	CHIP 47uH
L204	1-408-785-21	s	CHIP 47uH
L205	1-408-789-21	s	CHIP 100uH
L206	1-410-385-11	s	INDUCTOR, CHIP 22uH
LV201	1-412-018-11	s	COIL, VAR 5.6uH
Q1	8-729-905-18	s	TRANSISTOR DTC144EU
Q2	8-729-905-18	s	TRANSISTOR DTC144EU
Q3	8-729-122-63	s	TRANSISTOR 2SA1226
Q4	8-729-122-63	s	TRANSISTOR 2SA1226
Q5	8-729-117-32	s	TRANSISTOR 2SC4177
Q6	8-729-117-32	s	TRANSISTOR 2SC4177
Q7	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q8	8-729-117-72	s	TRANSISTOR 2SC4178
Q9	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q10	8-729-905-18	s	TRANSISTOR DTC144EU
Q11	8-729-117-72	s	TRANSISTOR 2SC4178
Q12	8-729-905-12	s	TRANSISTOR DTA144EU
Q101	8-729-117-72	s	TRANSISTOR 2SC4178
Q106	8-729-117-72	s	TRANSISTOR 2SC4178
Q107	8-729-117-72	s	TRANSISTOR 2SC4178
Q108	8-729-109-44	s	TRANSISTOR 2SK94
Q109	8-729-109-44	s	TRANSISTOR 2SK94
Q110	8-729-109-44	s	TRANSISTOR 2SK94
Q111	8-729-109-44	s	TRANSISTOR 2SK94
Q112	8-729-117-72	s	TRANSISTOR 2SC4178
Q114	8-729-117-72	s	TRANSISTOR 2SC4178
Q115	8-729-117-72	s	TRANSISTOR 2SC4178
Q116	8-729-117-72	s	TRANSISTOR 2SC4178
Q117	8-729-905-12	s	TRANSISTOR DTA144EU
Q118	8-729-905-12	s	TRANSISTOR DTA144EU
Q120	8-729-117-32	s	TRANSISTOR 2SC4177
Q121	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q122	8-729-117-32	s	TRANSISTOR 2SC4177
Q123	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q131	8-729-109-44	s	TRANSISTOR 2SK94
Q132	8-729-109-44	s	TRANSISTOR 2SK94
Q133	8-729-109-44	s	TRANSISTOR 2SK94
Q134	8-729-109-44	s	TRANSISTOR 2SK94
Q153	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q154	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q155	8-729-117-32	s	TRANSISTOR 2SC4177
Q156	8-729-117-72	s	TRANSISTOR 2SC4178
Q157	8-729-117-72	s	TRANSISTOR 2SC4178
Q158	8-729-109-44	s	TRANSISTOR 2SK94

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VDA-11P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q159	8-729-109-44	s	TRANSISTOR 2SK94
Q160	8-729-109-44	s	TRANSISTOR 2SK94
Q161	8-729-109-44	s	TRANSISTOR 2SK94
Q201	8-729-117-32	s	TRANSISTOR 2SC4177
Q202	8-729-117-32	s	TRANSISTOR 2SC4177
Q203	8-729-117-32	s	TRANSISTOR 2SC4177
Q204	8-729-117-32	s	TRANSISTOR 2SC4177
Q205	8-729-117-32	s	TRANSISTOR 2SC4177
Q206	8-729-117-32	s	TRANSISTOR 2SC4177
Q207	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q208	8-729-117-32	s	TRANSISTOR 2SC4177
Q209	8-729-117-32	s	TRANSISTOR 2SC4177
Q210	8-729-117-32	s	TRANSISTOR 2SC4177
Q211	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q301	8-729-101-07	s	TRANSISTOR 2SB798
Q303	8-729-807-50	s	TRANSISTOR 2SD1623
R1	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R2	1-218-293-11	s	METAL CHIP 24K 5% 1/16W
R3	1-216-994-11	s	METAL CHIP 13K 5% 1/16W
R4	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R5	1-216-668-11	s	METAL, CHIP 5.1K 0.5% 1/10W
R6	1-216-680-11	s	METAL, CHIP 16K 0.5% 1/10W
R7	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R8	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R9	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R10	1-216-828-11	s	METAL, CHIP 3.9K 5% 1/16W
R12	1-218-312-11	s	METAL, CHIP 470 1% 1/16W
R13	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R14	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R15	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R16	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R17	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R18	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R19	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R20	1-216-824-11	s	METAL, CHIP 1.8K 5% 1/16W
R21	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R22	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R23	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R24	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R25	1-216-838-11	s	METAL, CHIP 27K 5% 1/16W
R26	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R27	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R28	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R29	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R30	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R31	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R32	1-216-846-11	s	METAL, CHIP 120K 5% 1/16W
R33	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R34	1-216-865-11	s	METAL CHIP 3K 1/16W
R45	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R101	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R102	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R103	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R104	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R105	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R106	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R108	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R109	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W

(VDA-11P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R110	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R111	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R112	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R113	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R114	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R115	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R116	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R117	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R118	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R119	1-216-815-11	s	METAL, CHIP 330 5% 1/16W
R120	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R121	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R122	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R123	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R124	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R125	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R126	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R127	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R128	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R129	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R130	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R131	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R132	1-218-289-11	s	METAL CHIP 510 5% 1/16W
R133	1-218-289-11	s	METAL CHIP 510 5% 1/16W
R134	1-218-288-11	s	METAL, CHIP 300 5% 1/16W
R136	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R138	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R140	1-218-303-11	s	METAL, CHIP 10K 1% 1/16W
R141	1-218-303-11	s	METAL, CHIP 10K 1% 1/16W
R142	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R143	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R144	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R145	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R146	1-216-814-11	s	METAL, CHIP 270 5% 1/16W
R147	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R148	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R149	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R150	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R151	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R160	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R161	1-216-818-11	s	METAL, CHIP 560 5% 1/16W
R162	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R163	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R164	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R165	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R166	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R167	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R168	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R169	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R170	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R171	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R172	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R173	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R174	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R180	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R181	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R182	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R183	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R184	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VDA-11P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R185	1-216-864-11	s	METAL, CHIP 0-OHM
R186	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R187	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R188	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R189	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R190	1-216-864-11	s	METAL, CHIP 0-OHM
R191	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R201	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R202	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R203	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R204	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R205	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R206	1-216-818-11	s	METAL, CHIP 560 5% 1/16W
R207	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R208	1-216-820-11	s	METAL, CHIP 820 5% 1/16W
R209	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R210	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R211	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R212	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R213	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R214	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R215	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R216	1-216-836-11	s	METAL, CHIP 18K 5% 1/16W
R217	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R218	1-216-818-11	s	METAL, CHIP 560 5% 1/16W
R219	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R221	1-216-864-11	s	METAL, CHIP 0-OHM
R222	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R223	1-216-820-11	s	METAL, CHIP 820 5% 1/16W
R224	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R226	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R227	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R228	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R229	1-218-303-11	s	METAL, CHIP 10K 1% 1/16W
R230	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R231	1-216-834-11	s	METAL, CHIP 12K 5% 1/16W
R232	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R233	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R234	1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
R236	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R237	1-216-814-11	s	METAL, CHIP 270 5% 1/16W
R238	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R239	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R240	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R241	1-216-791-11	s	METAL CHIP 3.3 5% 1/16W
R242	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R243	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R244	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R245	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R301	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R302	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R304	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R305	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
RV1	1-237-036-11	s	RES, ADJ, METAL 10K
RV2	1-237-036-11	s	RES, ADJ, METAL 10K
RV3	1-237-034-11	s	RES, ADJ, METAL 2K
RV4	1-237-039-11	s	RES, ADJ, METAL 100K
RV5	1-237-034-11	s	RES, ADJ, METAL 2K

(VDA-11P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RV6	1-237-035-11	s	RES, ADJ, METAL 5K
RV7	1-237-037-11	s	RES, ADJ, METAL 20K
RV101	1-237-035-11	s	RES, ADJ, METAL 5K
RV102	1-237-035-11	s	RES, ADJ, METAL 5K
RV103	1-237-035-11	s	RES, ADJ, METAL 5K
RV104	1-237-035-11	s	RES, ADJ, METAL 5K
RV105	1-237-032-11	s	RES, ADJ, METAL 500
RV107	1-230-867-11	s	RES, ADJ, METAL 1K
RV108	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV201	1-237-035-11	s	RES, ADJ, METAL 5K
RV202	1-237-035-11	s	RES, ADJ, METAL 5K
RV203	1-237-038-11	s	RES, ADJ, METAL 50K
RV204	1-230-871-11	s	RES, ADJ, METAL 22K
RV205	1-237-033-11	s	RES, ADJ, METAL 1K
RV206	1-237-033-11	s	RES, ADJ, METAL 1K
RV208	1-230-871-11	s	RES, ADJ, METAL 22K
RV209	1-237-035-11	s	RES, ADJ, METAL 5K
RV210	1-237-035-11	s	RES, ADJ, METAL 5K
RV211	1-237-034-11	s	RES, ADJ, METAL 2K
RV212	1-237-036-11	s	RES, ADJ, METAL 10K
RV213	1-237-036-11	s	RES, ADJ, METAL 10K
TH1	1-808-862-21	s	THERMISTER (CHIP)

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

VDA-11P BOARD (Serial No. 41568 and higher)

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6711-993-B	o	MOUNTED CIRCUIT BOARD, VDA-11P
1pc	3-724-707-01	o	PLATE (VDA-11), ORNAMENTAL
1pc	3-724-753-01	o	RING
1pc	7-688-001-12	s	W 2, MIDDLE
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
C1	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C2	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C4	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C6	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C7	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C8	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C9	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C10	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C11	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C12	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C13	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C14	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C15	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C16	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C17	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C101	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C103	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C104	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C105	1-162-963-11	s	CERAMIC, CHIP 680PF 10% 50V
C106	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C107	1-162-964-11	s	CERAMIC, CHIP 0.001uF 10% 50V
C108	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C109	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C110	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C111	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C112	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C113	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C114	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C115	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C116	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C119	1-164-315-11	s	CERAMIC, CHIP 470PF 5% 50V
C120	1-164-315-11	s	CERAMIC, CHIP 470PF 5% 50V
C121	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C122	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C130	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C131	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C132	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C155	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C156	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C157	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C200	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C201	1-162-924-11	s	CERAMIC, CHIP 56PF 5% 50V
C202	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C203	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C204	1-135-166-21	s	TANTALUM, CHIP 47uF 20% 10V
C205	1-135-177-21	s	TANTALUM, CHIP 1uF 20% 25V
C206	1-135-177-21	s	TANTALUM, CHIP 1uF 20% 25V
C207	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C208	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C209	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C210	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C211	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C212	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C213	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C214	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C220	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C221	1-162-924-11	s	CERAMIC, CHIP 56PF 5% 50V
C222	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C223	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C224	1-135-166-21	s	TANTALUM, CHIP 47uF 20% 10V
C225	1-135-177-21	s	TANTALUM, CHIP 1uF 20% 25V
C226	1-135-177-21	s	TANTALUM, CHIP 1uF 20% 25V
C227	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C228	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C229	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C230	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C231	1-107-826-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C232	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C233	1-107-826-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C234	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C235	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C236	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C237	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C238	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C239	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C240	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C241	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C242	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C243	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C244	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C245	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C246	1-162-924-11	s	CERAMIC, CHIP 56PF 5% 50V
C247	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C248	1-135-157-21	s	TANTALUM, CHIP 10uF 10% 6.3V
C249	1-162-959-11	s	TANTALUM, CHIP 330PF 5% 50V
C250	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C251	1-107-826-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C252	1-107-826-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C253	1-164-315-11	s	CERAMIC, CHIP 470PF 5% 50V
C254	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C255	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C256	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C257	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C258	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C259	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C261	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C262	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C271	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C272	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C273	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C274	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C275	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C301	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-566-388-11	s	CONNECTOR, 2P, MALE
CNJ2	1-565-413-11	o	CONNECTOR 2P
CV1	1-141-423-61	s	CAP, ADJ
CV2	1-141-423-61	s	CAP, ADJ
CV3	1-141-423-61	s	CAP, ADJ
CV4	1-141-423-61	s	CAP, ADJ
CV11	1-141-423-61	s	CAP, ADJ
CV12	1-141-423-61	s	CAP, ADJ
CV13	1-141-423-61	s	CAP, ADJ

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VDA-11P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
CV14	1-141-423-61	s	CAP, ADJ
D200	8-719-941-23	s	DIODE DA204UT106
D201	8-719-821-39	s	DIODE 1SV160
FL1	1-236-021-21	s	FILTER, LOW-PASS
FL2	1-236-126-12	s	FILTER, LOW PASS
FL200	1-236-621-11	s	FILTER, LOW PASS
FL201	1-236-621-11	s	FILTER, LOW PASS
IC1	8-759-209-15	s	IC TC4SU69F
IC2	8-741-152-41	s	IC SBX1524-21
IC3	8-759-209-15	s	IC TC4SU69F
IC101	8-759-209-15	s	IC TC4SU69F
IC200	8-752-334-55	s	IC CXD1175AM
IC201	8-752-334-55	s	IC CXD1175AM
IC202	8-752-329-28	s	IC CXD1151Q
IC203	8-752-334-64	s	IC CXD1171M
IC204	8-752-356-84	s	IC CXD2215AQ
IC206	8-759-079-81	s	IC TC74VHC221AFS
IC207	8-759-184-65	s	IC TC4W66FU
IC208	8-759-030-16	s	IC MC34182M
IC209	8-759-100-94	s	IC UPC358G2-E2
IC210	8-759-096-87	s	IC TC7WU04FU
IC211	8-759-079-81	s	IC TC74VHC221AFS
IC212	8-759-079-81	s	IC TC74VHC221AFS
IC213	8-759-082-61	s	IC TC4W53FU
IC301	8-759-082-61	s	IC TC4W53FU
L1	1-412-064-11	s	INDUCTOR 100uH
L2	1-412-064-11	s	INDUCTOR 100uH
L3	1-412-058-11	s	INDUCTOR 10uH
L4	1-408-785-21	s	INDUCTOR CHIP 47uH
L101	1-412-064-11	s	INDUCTOR 100uH
L103	1-408-797-11	s	INDUCTOR CHIP 470uH
L104	1-408-797-11	s	INDUCTOR CHIP 470uH
L105	1-412-064-11	s	INDUCTOR 100uH
L106	1-412-064-11	s	INDUCTOR 100uH
L200	1-412-064-11	s	INDUCTOR 100uH
L201	1-410-377-31	s	INDUCTOR, CHIP 4.7uH
L202	1-412-064-11	s	INDUCTOR 100uH
L203	1-410-377-31	s	INDUCTOR, CHIP 4.7uH
L204	1-412-064-11	s	INDUCTOR 100uH
L205	1-412-064-11	s	INDUCTOR 100uH
L206	1-412-064-11	s	INDUCTOR 100uH
L207	1-412-064-11	s	INDUCTOR 100uH
LV200	1-412-810-11	s	COIL, VAR 5.6uH
Q1	8-729-905-18	s	TRANSISTOR DTC144EU
Q2	8-729-905-18	s	TRANSISTOR DTC144EU
Q3	8-729-117-32	s	TRANSISTOR 2SC4177
Q5	8-729-117-32	s	TRANSISTOR 2SC4177
Q6	8-729-117-32	s	TRANSISTOR 2SC4177
Q7	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q8	8-729-117-72	s	TRANSISTOR 2SC4178
Q9	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q10	8-729-905-18	s	TRANSISTOR DTC144EU
Q11	8-729-117-72	s	TRANSISTOR 2SC4178
Q12	8-729-905-12	s	TRANSISTOR DTA144EU
Q13	8-729-117-32	s	TRANSISTOR 2SC4177
Q101	8-729-117-72	s	TRANSISTOR 2SC4178
Q106	8-729-117-72	s	TRANSISTOR 2SC4178
Q107	8-729-117-72	s	TRANSISTOR 2SC4178
Q108	8-729-109-44	s	TRANSISTOR 2SK94
Q109	8-729-109-44	s	TRANSISTOR 2SK94
Q110	8-729-109-44	s	TRANSISTOR 2SK94
Q111	8-729-109-44	s	TRANSISTOR 2SK94
Q112	8-729-117-72	s	TRANSISTOR 2SC4178
Q114	8-729-117-72	s	TRANSISTOR 2SC4178
Q115	8-729-117-72	s	TRANSISTOR 2SC4178
Q116	8-729-117-72	s	TRANSISTOR 2SC4178
Q117	8-729-905-12	s	TRANSISTOR DTA144EU
Q118	8-729-905-12	s	TRANSISTOR DTA144EU
Q120	8-729-117-32	s	TRANSISTOR 2SC4177
Q121	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q122	8-729-117-32	s	TRANSISTOR 2SC4177
Q123	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q131	8-729-109-44	s	TRANSISTOR 2SK94
Q132	8-729-109-44	s	TRANSISTOR 2SK94
Q133	8-729-109-44	s	TRANSISTOR 2SK94
Q134	8-729-109-44	s	TRANSISTOR 2SK94
Q153	8-729-209-07	s	TRANSISTOR 2SC4213B
Q154	8-729-209-07	s	TRANSISTOR 2SC4213B
Q155	8-729-117-32	s	TRANSISTOR 2SC4177
Q156	8-729-117-72	s	TRANSISTOR 2SC4178
Q157	8-729-117-72	s	TRANSISTOR 2SC4178
Q158	8-729-109-44	s	TRANSISTOR 2SK94
Q159	8-729-109-44	s	TRANSISTOR 2SK94
Q160	8-729-109-44	s	TRANSISTOR 2SK94
Q161	8-729-109-44	s	TRANSISTOR 2SK94
Q200	8-729-117-32	s	TRANSISTOR 2SC4177
Q201	8-729-117-16	s	TRANSISTOR 2SA1611
Q202	8-729-117-32	s	TRANSISTOR 2SC4177
Q203	8-729-117-32	s	TRANSISTOR 2SC4177
Q204	8-729-117-32	s	TRANSISTOR 2SC4177
Q205	8-729-118-58	s	TRANSISTOR 2SK852
Q206	8-729-904-41	s	TRANSISTOR FMY3
Q207	8-729-117-32	s	TRANSISTOR 2SC4177
Q208	8-729-117-16	s	TRANSISTOR 2SA1611
Q209	8-729-117-32	s	TRANSISTOR 2SC4177
Q210	8-729-117-32	s	TRANSISTOR 2SC4177
Q211	8-729-117-32	s	TRANSISTOR 2SC4177
Q212	8-729-118-58	s	TRANSISTOR 2SK852
Q213	8-729-904-41	s	TRANSISTOR FMY3
Q214	8-729-117-16	s	TRANSISTOR 2SA1611
Q215	8-729-117-16	s	TRANSISTOR 2SA1611
Q303	8-729-807-51	s	TRANSISTOR 2SD1623
R1	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R2	1-218-293-11	s	METAL, CHIP 24K 5% 1/16W
R3	1-216-994-11	s	METAL, CHIP 13K 5% 1/16W
R4	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R5	1-218-864-11	s	METAL, CHIP 5.1K 0.5% 1/16W
R6	1-218-721-11	s	METAL, CHIP 16K 0.5% 1/16W
R7	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R8	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R9	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R10	1-216-828-11	s	METAL, CHIP 3.9K 5% 1/16W
R11	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R13	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R17	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R18	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R19	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VDA-11P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R20	1-216-824-11	s	METAL, CHIP 1.8K 5% 1/16W
R21	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R22	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R23	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R24	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R25	1-216-838-11	s	METAL, CHIP 27K 5% 1/16W
R26	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R27	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R28	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R29	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R30	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R31	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R32	1-216-846-11	s	METAL, CHIP 120K 5% 1/16W
R33	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R34	1-216-865-91	s	METAL, CHIP 3K 5% 1/16W
R35	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R36	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R45	1-216-805-11	s	METAL, CHIP 47 5% 1/16W
R101	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R102	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R103	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R104	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R105	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R106	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R108	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R109	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R110	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R111	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R112	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R113	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R114	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R115	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R116	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R117	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R118	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R119	1-216-815-11	s	METAL, CHIP 330 5% 1/16W
R120	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R121	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R122	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R123	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R124	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R125	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R126	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R127	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R128	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R129	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R130	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R131	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R132	1-218-289-11	s	METAL, CHIP 510 5% 1/16W
R133	1-218-289-11	s	METAL, CHIP 510 5% 1/16W
R134	1-218-288-11	s	METAL, CHIP 300 5% 1/16W
R136	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R138	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R140	1-218-716-11	s	METAL, CHIP 10K 0.50% 1/16W
R141	1-218-716-11	s	METAL, CHIP 10K 0.50% 1/16W
R142	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R143	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R144	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R145	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R146	1-216-814-11	s	METAL, CHIP 270 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VDA-11P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R147	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R148	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R149	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R150	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R151	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R160	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R161	1-216-818-11	s	METAL, CHIP 560 5% 1/16W
R162	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R163	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R164	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R165	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R166	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R167	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R168	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R169	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R170	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R171	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R172	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R173	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R174	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R180	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R181	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R182	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R183	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R184	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R185	1-216-864-11	s	METAL, CHIP 0-OHM
R186	1-216-789-11	s	METAL, CHIP 2.2 5% 1/16W
R187	1-216-789-11	s	METAL, CHIP 2.2 5% 1/16W
R188	1-216-789-11	s	METAL, CHIP 2.2 5% 1/16W
R189	1-216-789-11	s	METAL, CHIP 2.2 5% 1/16W
R190	1-216-864-11	s	METAL, CHIP 0-OHM
R191	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R200	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R201	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R202	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R203	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R204	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R205	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R206	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R207	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R208	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R209	1-216-814-11	s	METAL, CHIP 270 5% 1/16W
R210	1-218-858-11	s	METAL, CHIP 3K 0.50% 1/16W
R211	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R212	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R213	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R214	1-218-870-11	s	METAL, CHIP 9.1K 0.50% 1/16W
R215	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R216	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R217	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R218	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R220	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R221	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R222	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R223	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R224	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R225	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R226	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R227	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R228	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W

(VDA-11P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R229	1-216-814-11	s	METAL, CHIP 270 5% 1/16W
R230	1-218-858-11	s	METAL, CHIP 3K 0.50% 1/16W
R231	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R232	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R233	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R234	1-218-870-11	s	METAL, CHIP 9.1K 0.50% 1/16W
R235	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R236	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R237	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R238	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R239	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R240	1-216-864-91	s	METAL, CHIP 0-OHM
R241	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R242	1-218-706-11	s	METAL, CHIP 3.9K 0.5% 1/16W
R243	1-218-883-11	s	METAL, CHIP 33K 0.5% 1/16W
R244	1-218-724-11	s	METAL, CHIP 22K 0.50% 1/16W
R245	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R246	1-216-864-91	s	METAL, CHIP 0-OHM
R247	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R248	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R251	1-218-874-11	s	METAL, CHIP 13K 0.50% 1/16W
R252	1-218-708-11	s	METAL, CHIP 4.7K 0.50% 1/16W
R253	1-218-684-11	s	METAL, CHIP 470 0.50% 1/16W
R254	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W
R255	1-218-684-11	s	METAL, CHIP 470 0.50% 1/16W
R256	1-218-874-11	s	METAL, CHIP 13K 0.50% 1/16W
R257	1-218-732-11	s	METAL, CHIP 47K 0.50% 1/16W
R258	1-218-881-11	s	METAL, CHIP 27K 0.50% 1/16W
R259	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R260	1-218-716-11	s	METAL, CHIP 10K 0.50% 1/16W
R261	1-218-676-11	s	METAL, CHIP 220 0.50% 1/16W
R262	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R263	1-218-735-11	s	METAL, CHIP 62K 0.50% 1/16W
R264	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R265	1-218-845-11	s	METAL, CHIP 820 0.50% 1/16W
R266	1-218-881-11	s	METAL, CHIP 27K 0.50% 1/16W
R267	1-218-881-11	s	METAL, CHIP 27K 0.50% 1/16W
R268	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R269	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R304	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R305	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
RV1	1-237-036-11	s	RES, ADJ, METAL 10K
RV2	1-237-036-11	s	RES, ADJ, METAL 10K
RV3	1-237-034-11	s	RES, ADJ, METAL 2K
RV4	1-237-039-11	s	RES, ADJ, METAL 100K
RV5	1-237-034-11	s	RES, ADJ, METAL 2K
RV6	1-237-035-11	s	RES, ADJ, METAL 5K
RV7	1-237-037-11	s	RES, ADJ, METAL 20K
RV10	1-237-034-11	s	RES, ADJ, METAL 2K
RV101	1-237-035-11	s	RES, ADJ, METAL 5K
RV102	1-237-035-11	s	RES, ADJ, METAL 5K
RV103	1-237-035-11	s	RES, ADJ, METAL 5K
RV104	1-237-035-11	s	RES, ADJ, METAL 5K
RV105	1-237-032-11	s	RES, ADJ, METAL 500
RV107	1-237-033-11	s	RES, ADJ, METAL 1K
RV108	1-237-034-11	s	RES, ADJ, METAL 2K
RV200	1-237-033-11	s	RES, ADJ, METAL 1K
RV201	1-237-033-11	s	RES, ADJ, METAL 1K
RV202	1-237-034-11	s	RES, ADJ, METAL 2K

(VDA-11P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RV203	1-237-033-11	s	RES, ADJ, METAL 1K
RV204	1-237-034-11	s	RES, ADJ, METAL 2K
RV206	1-237-037-11	s	RES, ADJ, METAL 20K
RV207	1-237-037-11	s	RES, ADJ, METAL 20K
RV208	1-237-035-11	s	RES, ADJ, METAL 5K
RV209	1-237-035-11	s	RES, ADJ, METAL 5K
RV210	1-237-035-11	s	RES, ADJ, METAL 5K
TH200	1-809-308-21	s	THERMISTER (CHIP)
X200	1-760-109-21	s	CRYSTAL 10.738635MHz

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

VF-50 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8271-332-A	o	MOUNTED CIRCUIT BOARD, VF-50
C2	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C8	1-163-115-00	s	CERAMIC, CHIP 82PF 5% 50V
C13	1-131-374-00	s	TANTALUM 33uF 10% 16V
C14	1-131-374-00	s	TANTALUM 33uF 10% 16V
C15	⚠1-136-534-11	s	FILM 0.0027uF 5% 100V
C16	1-136-683-11	s	FILM 0.0056uF 2% 100V
C21	1-164-350-11	s	CERAMIC 470PF 10% 1KV
C22	1-126-233-11	s	ELECT 22uF 20% 50V
C23	1-163-833-00	s	CERAMIC, CHIP 0.068uF 25V
C24	1-131-365-00	s	TANTALUM 10uF 10% 20V
C35	1-136-683-11	s	FILM 0.0056uF 2% 100V
C37	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C46	1-126-176-11	s	ELECT 220uF 20% 10V
C47	1-124-455-00	s	ELECT 100uF 20% 16V
C49	1-163-243-11	s	CERAMIC 47PF 5% 50V
C51	1-163-018-00	s	CERAMIC, CHIP 0.0056uF 5% 50V
C53	1-131-347-00	s	TANTALUM 1uF 10% 35V
CN1	1-580-534-11	o	PIN, CONNECTOR (PC BOARD) 10P
CN2	1-580-535-11	o	PIN, CONNECTOR (PC BOARD) 12P
CN4	1-506-470-11	o	CONNECTOR, 5P, MALE
CN5	1-506-470-11	o	CONNECTOR, 5P, MALE
CN6	1-506-467-11	o	CONNECTOR, 2P, MALE
CN7	1-580-532-11	o	PIN, CONNECTOR (PC BOARD) 6P
CV1	1-141-369-22	s	CAP, CHIP TRIMMER
D1	8-719-985-53	s	DIODE HZS4ALL
D2	8-719-800-76	s	DIODE 1SS226
D3	8-719-900-95	s	DIODE V09G
D5	8-719-901-19	s	DIODE V11N
D6	8-719-900-95	s	DIODE V09G
D7	8-719-400-18	s	DIODE MA152WK
D8	8-719-400-18	s	DIODE MA152WK
D9	8-719-800-76	s	DIODE 1SS226
D10	8-719-800-76	s	DIODE 1SS226
D11	8-719-400-18	s	DIODE MA152WK
D12	8-719-933-47	s	DIODE HZS7B2L
D13	8-719-104-34	s	DIODE 1S2836
D14	8-719-820-58	s	DIODE 1SS177
DL1	1-415-487-11	s	DELAY LINE 140nS
IC1	⚠8-759-300-28	s	IC HA11423MP
IC2	8-759-100-94	s	IC UPC358G2
IC3	8-759-209-57	s	IC TC4S69F
IC4	8-759-209-54	s	IC TC4S01F
L2	⚠1-459-899-11	s	COIL, HORIZONTAL LINEARITY
L3	1-410-716-31	s	INDUCTOR CHIP 82uH
Q1	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q2	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q3	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q4	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q5	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q6	8-729-105-37	s	TRANSISTOR 2SC3360
Q7	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q8	8-729-119-00	s	TRANSISTOR 2SK612
Q9	8-729-119-00	s	TRANSISTOR 2SK612
Q10	8-729-105-37	s	TRANSISTOR 2SC3360
Q11	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q12	8-729-216-22	s	TRANSISTOR 2SA1162
Q13	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q14	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q15	8-729-216-22	s	TRANSISTOR 2SA1162
Q16	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q17	8-729-109-44	s	TRANSISTOR 2SK94
Q18	8-729-216-22	s	TRANSISTOR 2SA1162
R3	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R4	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R5	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R6	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R8	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R10	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R11	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R12	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R14	1-216-637-11	s	METAL, CHIP 270 0.5% 1/10W
R15	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R16	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R17	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R19	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R20	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R22	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R23	1-216-673-11	s	METAL, CHIP 8.2K 0.5% 1/10W
R25	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R26	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R27	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R28	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R29	1-214-520-00	s	METAL FILM 30 1% 1/8W
R32	1-216-698-11	s	METAL, CHIP 91K 0.5% 1/10W
R43	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R46	1-215-490-00	s	METAL 750K 1% 1/6W
R50	⚠1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R51	⚠1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R53	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R79	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R81	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R82	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R85	1-216-668-11	s	METAL, CHIP 5.1K 0.5% 1/10W
R86	1-216-693-11	s	METAL, CHIP 56K 0.5% 1/10W
R87	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R91	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R92	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R93	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R102	1-215-830-11	s	METAL, FILM 100K 1% 1/8W
RV1	1-237-035-11	s	RES, ADJ, METAL 5K
RV2	1-237-035-11	s	RES, ADJ, METAL 5K
RV3	1-237-035-11	s	RES, ADJ, METAL 5K
RV4	1-237-041-11	s	RES, ADJ, METAL 500K
RV5	1-237-035-11	s	RES, ADJ, METAL 5K
RV6	1-237-031-11	s	RES, ADJ, METAL 200
RV7	1-237-032-11	s	RES, ADJ, METAL 500
RV8	1-237-032-11	s	RES, ADJ, METAL 500
RV9	1-237-038-11	s	RES, ADJ, METAL 50K
T1	⚠1-439-419-11	s	TRANSFORMER, FLYBACK
VDR1	1-806-497-00	s	VARISTOR ERZ-C05DK220

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

VP-24P BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6711-992-A	o	MOUNTED CIRCUIT BOARD, VP-24P
1pc	3-724-706-01	o	PLATE (VP-24), ORNAMENTAL
1pc	3-724-753-01	o	RING
1pc	7-688-001-12	s	W 2, MIDDLE
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
C1	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C2	1-126-398-11	s	ELECT, CHIP 4.7uF 20% 35V
C3	1-126-401-11	s	ELECT, CHIP 1uF 20% 50V
C4	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C26	1-163-229-11	s	CERAMIC 12PF 5% 50V
C27	1-163-239-11	s	CERAMIC 33PF 5% 50V
C56	1-163-229-11	s	CERAMIC 12PF 5% 50V
C57	1-163-239-11	s	CERAMIC 33PF 5% 50V
C81	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C83	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C102	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C103	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C104	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C106	1-163-263-11	s	CERAMIC 330PF 5% 50V
C107	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C109	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C110	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C111	1-163-235-11	s	CERAMIC 22PF 5% 50V
C112	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C121	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C123	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C126	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C127	1-126-398-11	s	ELECT, CHIP 4.7uF 20% 35V
C128	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C129	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C141	1-163-243-11	s	CERAMIC 47PF 5% 50V
C147	1-163-227-11	s	CERAMIC 10PF 5% 50V
C148	1-163-251-11	s	CERAMIC 100PF 5% 50V
C149	1-126-401-11	s	ELECT, CHIP 1uF 20% 50V
C151	1-163-263-11	s	CERAMIC 330PF 5% 50V
C157	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C161	1-163-237-11	s	CERAMIC 27PF 5% 50V
C164	1-162-964-91	s	CERAMIC CHIP 1000PF
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
D1	8-719-123-85	s	DIODE 1SS304
D2	8-719-123-85	s	DIODE 1SS304
D3	8-719-123-85	s	DIODE 1SS304
D4	8-719-123-85	s	DIODE 1SS304
D5	8-719-911-19	s	DIODE 1SS119
FB21	1-543-309-21	s	BEAD, FERRITE
FB51	1-543-309-21	s	BEAD, FERRITE
FB101	1-543-309-21	s	BEAD, FERRITE
IC1	8-759-112-53	s	IC UPC1663G
IC2	8-759-112-53	s	IC UPC1663G
IC3	8-759-977-69	s	IC CXD1357Q
IC4	8-759-230-99	s	IC TC74HC4053AF
IC5	8-752-002-99	s	IC CX20030-Z
IC6	8-759-209-90	s	IC TC4S71F
IC7	8-759-239-34	s	IC TC74HC4538AF
L21	1-410-703-21	s	INDUCTOR, CHIP 6.8uH
L51	1-410-703-21	s	INDUCTOR, CHIP 6.8uH
L101	1-408-778-21	s	INDUCTOR CHIP 12uH
L121	1-410-717-31	s	INDUCTOR, CHIP 100uH
L122	1-408-779-31	s	INDUCTOR CHIP 15uH
L123	1-410-722-31	s	INDUCTOR CHIP 270uH
Q1	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q2	8-729-905-18	s	TRANSISTOR DTC144EU
Q3	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q4	8-729-117-32	s	TRANSISTOR 2SC4177
Q5	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q8	8-729-109-44	s	TRANSISTOR 2SK94
Q9	8-729-109-44	s	TRANSISTOR 2SK94
Q10	8-729-109-44	s	TRANSISTOR 2SK94
Q11	8-729-109-44	s	TRANSISTOR 2SK94
Q12	8-729-117-72	s	TRANSISTOR 2SC4178
Q13	8-729-117-72	s	TRANSISTOR 2SC4178
Q14	8-729-117-72	s	TRANSISTOR 2SC4178
Q15	8-729-109-44	s	TRANSISTOR 2SK94
Q16	8-729-109-44	s	TRANSISTOR 2SK94
Q17	8-729-109-44	s	TRANSISTOR 2SK94
Q18	8-729-109-44	s	TRANSISTOR 2SK94
Q19	8-729-117-72	s	TRANSISTOR 2SC4178
Q20	8-729-117-72	s	TRANSISTOR 2SC4178
Q21	8-729-117-72	s	TRANSISTOR 2SC4178
Q22	8-729-905-12	s	TRANSISTOR DTA144EU
Q23	8-729-906-33	s	TRANSISTOR DTC114YU
Q25	8-729-906-33	s	TRANSISTOR DTC114YU
Q26	8-729-905-18	s	TRANSISTOR DTC144EU
Q27	8-729-905-18	s	TRANSISTOR DTC144EU
Q28	8-729-905-12	s	TRANSISTOR DTA144EU
Q29	8-729-905-18	s	TRANSISTOR DTC144EU
Q30	8-729-905-18	s	TRANSISTOR DTC144EU
Q31	8-729-117-72	s	TRANSISTOR 2SC4178
Q32	8-729-117-72	s	TRANSISTOR 2SC4178
Q33	8-729-117-72	s	TRANSISTOR 2SC4178
Q34	8-729-117-72	s	TRANSISTOR 2SC4178
Q35	8-729-117-72	s	TRANSISTOR 2SC4178
Q36	8-729-117-72	s	TRANSISTOR 2SC4178
Q37	8-729-117-72	s	TRANSISTOR 2SC4178
Q38	8-729-117-72	s	TRANSISTOR 2SC4178
Q39	8-729-117-72	s	TRANSISTOR 2SC4178
Q40	8-729-905-18	s	TRANSISTOR DTC144EU
Q41	8-729-109-44	s	TRANSISTOR 2SK94
Q42	8-729-109-44	s	TRANSISTOR 2SK94
Q43	8-729-109-44	s	TRANSISTOR 2SK94
Q44	8-729-109-44	s	TRANSISTOR 2SK94
Q45	8-729-109-44	s	TRANSISTOR 2SK94
Q46	8-729-109-44	s	TRANSISTOR 2SK94
Q47	8-729-109-44	s	TRANSISTOR 2SK94
Q48	8-729-109-44	s	TRANSISTOR 2SK94
Q51	8-729-117-72	s	TRANSISTOR 2SC4178
Q52	8-729-117-72	s	TRANSISTOR 2SC4178
Q53	8-729-905-12	s	TRANSISTOR DTA144EU
Q54	8-729-905-18	s	TRANSISTOR DTC144EU
Q55	8-729-906-33	s	TRANSISTOR DTC114YU
Q56	8-729-905-18	s	TRANSISTOR DTC144EU
Q57	8-729-905-12	s	TRANSISTOR DTA144EU
Q58	8-729-905-18	s	TRANSISTOR DTC144EU
Q59	8-729-905-18	s	TRANSISTOR DTC144EU
Q60	8-729-905-12	s	TRANSISTOR DTA144EU

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VP-24P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q61	8-729-117-72	s	TRANSISTOR 2SC4178
Q62	8-729-905-18	s	TRANSISTOR DTC144EU
R1	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R2	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R3	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R4	1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
R5	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R6	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R7	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R8	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R9	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R21	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R22	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R23	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R24	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R25	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R26	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R27	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
R28	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R29	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R30	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R31	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R32	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R33	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R34	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R37	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R38	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R39	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R40	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R41	1-216-815-11	s	METAL, CHIP 330 5% 1/16W
R42	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R43	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R44	1-216-807-11	s	METAL, CHIP 68 5% 1/16W
R45	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R46	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R47	1-216-811-11	s	METAL, CHIP 150 5% 1/16W
R51	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R52	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R53	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R54	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R55	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R56	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R57	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R58	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R59	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R60	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R61	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R62	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R63	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R64	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R67	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R68	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R69	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R70	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R71	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R72	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R73	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R74	1-216-807-11	s	METAL, CHIP 68 5% 1/16W
R75	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R76	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R80	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R81	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R82	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R83	1-216-847-11	s	METAL, CHIP 150K 5% 1/16W
R84	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R85	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R86	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R87	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R89	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R90	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R91	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R92	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R93	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R94	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R95	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R96	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R97	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R98	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R99	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R100	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R101	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R102	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R103	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R104	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R105	1-216-864-11	s	METAL, CHIP 0-OHM
R106	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R107	1-215-433-00	s	METAL, CHIP 3.3K
R108	1-218-484-11	s	METAL, CHIP 750
R109	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R110	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R111	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R112	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R113	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R114	1-216-815-11	s	METAL, CHIP 330 5% 1/16W
R115	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R116	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R117	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R118	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R119	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R121	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R122	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R123	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R125	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
R126	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R127	1-216-828-11	s	METAL, CHIP 3.9K 5% 1/16W
R128	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R129	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R130	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R131	1-216-828-11	s	METAL, CHIP 3.9K 5% 1/16W
R132	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R133	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R134	1-216-807-11	s	METAL, CHIP 68 5% 1/16W
R135	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R136	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R137	1-216-864-11	s	METAL, CHIP 0-OHM
R141	1-216-847-11	s	METAL, CHIP 150K 5% 1/16W
R142	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VP-24P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R143	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R144	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R145	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R146	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R147	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R148	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R149	1-216-824-11	s	METAL, CHIP 1.8K 5% 1/16W
R150	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R151	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R152	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
R153	1-216-847-11	s	METAL, CHIP 150K 5% 1/16W
R154	1-216-834-11	s	METAL, CHIP 12K 5% 1/16W
R155	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R156	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R157	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R158	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R159	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R160	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R161	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R162	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R163	1-216-864-11	s	METAL, CHIP 0-OHM
R164	1-216-834-11	s	METAL, CHIP 12K 5% 1/16W
R165	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R166	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R168	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R171	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R172	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R201	1-218-680-11	s	METAL, CHIP 330
R202	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
RV21	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV23	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV25	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV27	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV51	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV53	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV55	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV57	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV101	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV102	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV141	1-230-870-11	s	RES, ADJ, METAL 10K
S1	1-571-275-11	s	SWITCH, SLIDE

VR-70 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-569-193-11	s	CONTACT
1pc	1-569-199-11	o	PLUG HOUSING, 6P
1pc	1-625-553-13	o	PRINTED CIRCUIT BOARD, VR-70
CN1	1-506-485-11	o	CONNECTOR, 6P, MALE
RV1	1-230-337-11	s	RES, VAR, CARBON 10K
RV2	1-230-337-11	s	RES, VAR, CARBON 10K
RV3	1-228-456-00	s	RES, ADJ, METAL 1K

VR-77 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-625-554-13	o	PRINTED CIRCUIT BOARD, VR-77
RV1	1-223-165-00	s	RES, ADJ, WIREWOUND 10K

VR-179 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-564-832-11	o	CONTACT
1pc	1-580-582-11	o	HOUSING, 12P
1pc	1-580-599-11	o	CONTACT, FEMALE, AWG26-30
1pc	1-643-708-11	o	PRINTED CIRCUIT BOARD, VR-149
R4	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
RV1	1-238-290-11	s	RES, VAR, CARBON 1K
RV2	1-238-296-11	s	RES, VAR, CARBON 10K
RV3	1-238-293-11	s	RES, VAR, CARBON 10K
RV4	1-238-296-11	s	RES, VAR, CARBON 10K

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

FRAME

Ref. No. or Q'ty	Part No.	SP	Description
	1-464-995-41	s	CONVERTER, DC-DC (CD-89)
	1-466-158-13	s	CONVERTER UNIT, DC-DC
	⚠1-546-092-41	s	1.5" CRT ASSY
	1-940-613-14	s	HARNESS, SUB (BATT)
	1-940-619-11	o	HARNESS, SUB (ADP)
	1-940-628-11	o	HARNESS, SUB (KY)
	1-950-039-11	s	HARNESS (VF CABLE-2)
	1-625-891-11	s	WIRE, FLEXIBLE CARD 20P (FL-45)
	1-625-892-11	s	WIRE, FLEXIBLE CARD 20P (FL-46)
	1-625-895-11	s	WIRE, FLEXIBLE CARD 12P (FL-57)
	8-759-947-34	s	IC LM35DZ "TEMPERATURE SENSING"
C001	1-136-189-00	s	CAP, METALIZED FILM 0.1uF
CN1 (DC/DC CONVERTER)			
	1-562-152-11	o	HOUSING, 7P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN1 (to CN-400 BOARD)			
	1-565-123-11	o	HOUSING, 4P
	1-565-164-21	o	CONTACT, FEMALE, AWG26-28
CN1 (to IF-298 BOARD)			
	1-562-156-11	o	HOUSING, 11P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN1 (to LD-21 BOARD)			
	1-562-151-11	o	HOUSING, 6P
	1-564-026-00	s	CONTACT, FEMALE, AWG26-30
CN1 (to PA-155 BOARD)			
	1-562-151-11	o	HOUSING, 6P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN1 (to SW-291 BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-564-026-00	s	CONTACT, FEMALE, AWG26-30
CN1 (to SW-357 BOARD)			
	1-562-150-11	s	HOUSING, 5P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN2 (to CN-400 BOARD)			
	1-565-126-11	o	HOUSING, CONNECTOR 7P
	1-565-164-21	o	CONTACT, FEMALE, AWG26-28
CN2 (to IF-298 BOARD)			
	1-565-129-11	o	HOUSING 10P
	1-565-164-11	o	CONTACT, FEMALE, AWG26-28
CN2 (to PS-162 BOARD)			
	1-543-157-00	s	BEAD, FERRITE
	1-562-255-00	o	HOUSING, 5P
	1-562-260-21	o	CONTACT, FEMALE AWG24-28
CN2 (to SW-220 BOARD)			
	1-562-743-11	o	HOUSING, 10P
	1-563-869-11	o	CONTACT, FEMALE, AWG26-30
CN3 (to DR-124 BOARD)			
	1-562-154-11	o	HOUSING, 9P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN3 (to IF-298 BOARD)			
	1-565-133-11	o	HOUSING, 14P
	1-565-164-21	o	CONTACT, FEMALE, AWG26-28
CN3 (to PS-162 BOARD)			
	1-543-298-11	s	BEAD, FERRITE
	1-562-148-11	s	HOUSING, 3P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN4 (to IF-298 BOARD)			
	1-565-133-11	o	HOUSING, 14P
	1-565-164-21	o	CONTACT, FEMALE, AWG26-28
CN4 (to PS-162 BOARD)			
	1-543-298-11	s	BEAD, FERRITE
	1-562-148-11	s	HOUSING, 3P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(FRAME)

Ref. No. or Q'ty	Part No.	SP	Description
CN5 (to IF-298 BOARD)			
	1-562-153-11	o	HOUSING, 8P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN5 (to PS-162 BOARD)			
	1-562-257-00	o	HOUSING, CONNECTOR 8P
	1-562-260-21	o	CONTACT, FEMALE AWG24-28
CN6 (to TB-5 BOARD)			
	1-562-151-11	o	HOUSING, 6P
	1-564-026-00	s	CONTACT, FEMALE, AWG26-30
CN7 (to PS-162 BOARD)			
	1-543-298-11	s	BEAD, FERRITE
	1-562-252-00	o	HOUSING, 2P
	1-562-260-21	o	CONTACT, FEMALE, AWG24-28
CN10 (to PS-162 BOARD)			
	1-562-254-00	o	HOUSING, 4P
	1-562-260-21	o	CONTACT, FEMALE AWG24-28
CN10 (to TC-48A BOARD)			
	1-569-199-11	o	PLUG HOUSING, 6P
	1-569-193-11	s	CONTACT
CN11 (to TC-48A BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-564-026-00	s	CONTACT, FEMALE, AWG26-30
CN22 (to MB-317P BOARD)			
	1-543-298-11	s	BEAD, FERRITE
	1-563-869-11	o	CONTACT, FEMALE, AWG26-30
	1-563-874-11	o	HOUSING, 12P
CN23 (to MB-317P BOARD)			
	1-569-196-41	o	HOUSING, 3P
	1-569-193-11	s	CONTACT
CN24 (to MB-317P BOARD)			
	1-562-150-11	s	HOUSING, 5P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN25 (to MB-317P BOARD)			
	1-543-298-11	s	BEAD, FERRITE
	1-562-148-11	s	HOUSING, 3P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN50 (to MB-317P BOARD)			
	1-563-875-11	o	HOUSING, 14P
	1-563-869-11	o	CONTACT, FEMALE, AWG26-30
CN52 (to MB-317P BOARD)			
	1-562-151-11	o	HOUSING, 6P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN53 (to MB-317P BOARD)			
	1-562-149-11	s	HOUSING, 4P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN54 (to MB-317P BOARD)			
	1-563-876-11	s	HOUSING, 16P
	1-563-869-11	o	CONTACT, FEMALE, AWG26-30
CN56 (to MB-317P BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-564-026-00	s	CONTACT, FEMALE, AWG26-30
CN57 (to MB-317P BOARD)			
	1-562-150-11	s	HOUSING, 5P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30

(FRAME)

Ref. No. or Q'ty	Part No.	SP	Description
CN58 (to MB-317P BOARD)			
	1-563-873-11	o	HOUSING, 10P
	1-563-869-11	o	CONTACT, FEMALE, AWG26-30
CN60 (to MB-317P BOARD)			
	1-562-257-00	o	HOUSING, CONNECTOR 8P
	1-562-260-21	o	CONTACT, FEMALE AWG24-28
CN61 (to MB-317P BOARD)			
	1-562-148-11	s	HOUSING, 3P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN62 (to MB-317P BOARD)			
	1-562-149-11	s	HOUSING, 4P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN001	1-565-764-11	s	CONNECTOR ASSY, BNC "VIDEO OUT-2"
CN002	1-561-233-21	s	CONNECTOR, 6P, FEMALE "REMOTE"
CN004	1-564-603-11	s	CONNECTOR (WITH DC SW) 4P, MALE "EXT +12V"
CN005	1-565-072-11	s	CONNECTOR, 4P, FEMALE "DC OUT"
CN006	1-563-029-21	s	CONNECTOR, XLR 3P, FEMALE "CH-1"
CN007	1-563-029-21	s	CONNECTOR, XLR 3P, FEMALE "CH-2"
CN011	1-563-029-21	s	CONNECTOR, XLR 3P, FEMALE "MIC"
CN014	1-565-764-11	s	CONNECTOR ASSY, BNC "VIDEO OUT-1"
CN015	1-561-781-21	s	CONNECTOR, BNC, FEMALE "GEN LOCK VIDEO IN"
CN016	1-561-781-11	s	CONNECTOR, BNC, FEMALE "TC IN"
CN017	1-561-781-11	s	CONNECTOR, BNC, FEMALE "TC OUT"
CN101	1-565-051-11	o	CONNECTOR, 20P, FEMALE "VF"
CN102	1-562-221-21	s	CONNECTOR, 12P, FEMALE "LENS"
CN110F	1-561-518-00	o	HOUSING, ILG 6P, FEMALE
	1-560-372-00	o	CONTACT, AWG22-28
CN110M	1-562-855-11	o	CONNECTOR, IL-M 6P, MALE
	1-564-092-11	o	CONTACT, FEMALE, IL-M, AWG24-28
CN501 (to MB-317P BOARD)			
	1-562-150-11	s	HOUSING, 5P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN502 (to MB-317P BOARD)			
	1-562-151-11	o	HOUSING, 6P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN503 (to MB-317P BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN504 (to MB-317P BOARD)			
	1-562-148-11	s	HOUSING, 3P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN505 (to MB-317P BOARD)			
	1-562-152-11	o	HOUSING, 7P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN506 (to MB-317P BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN507 (to MB-317P BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN508 (to MB-317P BOARD)			
	1-565-128-11	o	HOUSING, CONNECTOR 9P

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(FRAME)

Ref. No. or Q'ty	Part No.	SP	Description
	1-565-164-21	o	CONTACT, FEMALE, AWG26-28
CN509 (to MB-317P BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
FB001	1-543-157-00	s	BEAD, FERRITE
FB002	1-543-157-00	s	BEAD, FERRITE
H001	8-825-749-02	s	HEAD, AU PPS244-2103
H002	8-825-560-41	s	HEAD, CTL RS-253-21
H003	8-825-772-61	s	HEAD, ERASE EF291-21A
M001	8-835-308-01	s	MOTOR, DC LN18-S1N1B
M002	8-835-313-01	s	MOTOR, DC U-19A
SP001	1-503-293-00	s	SPEAKER
R001	1-249-404-00	s	CARBON 82 5% 1/4W
SW002	1-553-448-00	s	SWITCH, TOGGLE "POWER"

13-4. PACKING MATERIALS AND ACCESSORIES

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6772-374-A	s	BELT ASSY, SHOULDER
1pc	A-7520-314-A	o	MOUNTED CIRCUIT BOARD, EX-148
1pc	X-2383-823-4	o	CASE ASSY, CARRYING
4pcs	2-383-835-01	o	CASTER
1pc	1-542-099-11	s	MICROPHONE
1pc	3-707-636-01	s	SCREEN ASSY, WIND (CM-BVW200)
1pc	3-725-262-03	s	COVER, RAIN

13-5. OPTIONAL FIXTURE

Ref. No. or Q'ty	Part No.	SP	Description
	J-6001-820-A	o	DRUM ECCENTRICITY GAUGE (3)
	J-6001-830-A	o	DRUM ECCENTRICITY GAUGE (2)
	J-6026-100-A	o	RESOLUTION CHART
	J-6026-130-B	o	GRAY SCALE CHART
	J-6029-140-B	o	PATTERN BOX, PTB-500
	J-6080-003-C		FWD BACK TENSION MEASUREMENT CASSETTE
	J-6086-570-A		PLATE, PARALLEL
	J-6152-450-A		WIRE CLEARANCE CHECK GAUGE
	J-6321-500-A		TAPE GUIDE ADJUSTMENT DRIVER
	J-6321-880-A		CASSETTE DUMMY COVER
	J-6325-110-A		TORQUE DRIVER BIT (FOR M1.4)
	J-6325-360-A		FLATNESS CHECK TOOL
	J-6325-380-A		TORQUE DRIVER BIT (FOR M2)
	J-6325-400-A		TORQUE DRIVER BIT (FOR 3Kg)
	J-6325-530-A		DRUM ECCENTRICITY GAUGE (6)
	J-6326-120-A		HEXAGON BIT
	J-6332-290-A		SERVO REMOTE CONTROL TOOL
	J-6335-710-A		REC CURRENT ADJUSTMENT TOOL
	J-6335-730-A		VIDEO SIGNAL INPUT BOARD
	J-6335-740-A		EXTENSION HARNESS
	7-732-050-20		TENSION SCALE (50g FULL SCALE)
	7-732-902-00		INSPECTION MIRROR
	8-960-096-51		ALIGNMENT TAPE, CR2-1B PS
	8-960-096-86		ALIGNMENT TAPE, CR8-1B PS
	8-960-096-91		ALIGNMENT TAPE, CR5-1B PS
	8-960-098-44		ALIGNMENT TAPE, CR5-2A PS
	8-960-098-45		ALIGNMENT TAPE, CR8-1A PS
	9-911-053-00	s	THICKNESS GAUGE

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

SECTION 14
CHANGED PARTS

NOTE: The numbers identified by marking with) are matching with each serial numbers.

AFM-6P BOARD

OLD)	CV1	1-141-370-11	s CAP, CHIP TRIMMER
204)	CV1	1-141-369-52	s CAP, CHIP TRIMMER
OLD)	CV2	1-141-370-11	s CAP, CHIP TRIMMER
204)	CV2	1-141-369-52	s CAP, CHIP TRIMMER
OLD)	CV3	1-141-370-11	s CAP, CHIP TRIMMER
204)	CV3	1-141-369-52	s CAP, CHIP TRIMMER
OLD)	CV4	1-141-370-11	s CAP, CHIP TRIMMER
204)	CV4	1-141-369-52	s CAP, CHIP TRIMMER
OLD)	CV101	1-141-370-11	s CAP, CHIP TRIMMER
204)	CV101	1-141-369-52	s CAP, CHIP TRIMMER
OLD)	CV102	1-141-370-11	s CAP, CHIP TRIMMER
204)	CV102	1-141-369-52	s CAP, CHIP TRIMMER
OLD)	CV103	1-141-370-11	s CAP, CHIP TRIMMER
204)	CV103	1-141-369-52	s CAP, CHIP TRIMMER
OLD)	CV104	1-141-370-11	s CAP, CHIP TRIMMER
204)	CV104	1-141-369-52	s CAP, CHIP TRIMMER
OLD)	R205	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
505)	R205	1-216-820-11	s METAL, CHIP 820 5% 1/16W

AT-49B BOARD

OLD)	C43	NOT IN USE.	
203)	C43	1-135-227-11	s TANTAL 100uF 20% 6.3V
OLD)	IC18	8-759-070-13	s IC HN27C64G-BVW400-3.01
203)	IC18	8-759-084-02	o IC AM27C64-BVW400AV3.02
OLD)	R100	NOT IN USE.	
203)	R100	1-249-388-11	s CARBON 3.9 5% 1/4W
OLD)	RV1	1-241-447-21	s RES, ADJ, CERMET 5K
205)	RV1	1-237-035-11	s RES, ADJ, METAL 5K
OLD)	RV4	1-241-447-21	s RES, ADJ, CERMET 5K
205)	RV4	1-237-035-11	s RES, ADJ, METAL 5K
OLD)	IC18	8-759-086-69	o IC AM27C64-BVW400AV3.03
207)	IC18	8-759-157-75	o IC AM27C64-BVW400AV3.15

AU-97P BOARD

OLD)	IC2	8-759-630-28	s IC M5236ML
208)	IC2	8-759-095-59	s IC M5237ML

CN-771 BOARD

OLD)	1pc	NOT IN USE.	
201)	1pc	3-177-365-01	o SHEET (CN), INSULATING

201) Serial No. 40032 and higher
202) Serial No. 40082 and higher
203) Serial No. 40132 and higher
204) Serial No. 40182 and higher
205) Serial No. 40242 and higher
206) Serial No. 40316 and higher
207) Serial No. 40361 and higher
208) Serial No. 40411 and higher
411) Serial No. 41303 and higher
505) Serial No. 41568 and higher

OLD)	1pc	NOT IN USE.	
201)	1pc	3-742-205-02	o BRACKET, CN
OLD)	1pc	NOT IN USE.	
201)	1pc	7-627-553-47	s SCREW, PRECISION +P 2X4

DR-124 BOARD

OLD)	RV1	1-241-449-21	s RES, ADJ, CERMET 20K
205)	RV1	1-237-037-11	s RES, ADJ, METAL 20K
OLD)	RV2	1-241-449-21	s RES, ADJ, CERMET 20K
205)	RV2	1-237-037-11	s RES, ADJ, METAL 20K
OLD)	RV3	1-241-449-21	s RES, ADJ, CERMET 20K
205)	RV3	1-237-037-11	s RES, ADJ, METAL 20K

EN-79P BOARD

OLD)	CV1	1-141-347-11	s CAP, TRIMMER 10PF
206)	CV1	1-141-422-11	s CAP, ADJ
OLD)	RV1	1-241-446-11	s RES, ADJ, CERMET 2K
205)	RV1	1-237-034-11	s RES, ADJ, METAL 2K
OLD)	RV2	1-241-446-11	s RES, ADJ, CERMET 2K
205)	RV2	1-237-034-11	s RES, ADJ, METAL 2K
OLD)	RV3	1-241-446-11	s RES, ADJ, CERMET 2K
205)	RV3	1-237-034-11	s RES, ADJ, METAL 2K
OLD)	RV6	1-241-448-11	s RES, ADJ, CERMET 10K
205)	RV6	1-237-036-11	s RES, ADJ, METAL 10K
OLD)	RV8	1-241-446-11	s RES, ADJ, CERMET 2K
205)	RV8	1-237-034-11	s RES, ADJ, METAL 2K
OLD)	RV11	1-241-445-21	s RES, ADJ, CERMET 1K
205)	RV11	1-237-033-11	s RES, ADJ, METAL 1K
OLD)	RV12	1-241-445-21	s RES, ADJ, CERMET 1K
205)	RV12	1-237-033-11	s RES, ADJ, METAL 1K
OLD)	RV13	1-241-448-11	s RES, ADJ, CERMET 10K
205)	RV13	1-237-036-11	s RES, ADJ, METAL 10K
OLD)	RV15	1-241-446-11	s RES, ADJ, CERMET 2K
205)	RV15	1-237-034-11	s RES, ADJ, METAL 2K
OLD)	RV16	1-241-447-21	s RES, ADJ, CERMET 5K
205)	RV16	1-237-035-11	s RES, ADJ, METAL 5K
OLD)	RV18	1-241-445-21	s RES, ADJ, CERMET 1K
205)	RV18	1-237-033-11	s RES, ADJ, METAL 1K
OLD)	RV19	1-241-445-21	s RES, ADJ, CERMET 1K
205)	RV19	1-237-033-11	s RES, ADJ, METAL 1K
OLD)	RV20	1-241-444-21	s RES, ADJ, CERMET 500
205)	RV20	1-237-032-11	s RES, ADJ, METAL 500
OLD)	RV21	1-241-444-21	s RES, ADJ, CERMET 500
205)	RV21	1-237-032-11	s RES, ADJ, METAL 500

FE-4 BOARD

OLD)	CP1	1-424-101-11	s	TRANSFORMER, FE
205)	CP1	1-424-511-11	s	TRANSFORMER, FE

FL-57 BOARD

OLD)	1pc	1-625-895-11	s	PRINTED CIRCUIT BOARD, FL-57 FLEXIB
206)	1pc	1-625-895-21	s	PRINTED CIRCUIT BOARD, FL-57 FLEXIB

IE-30P BOARD

OLD)	CV1	1-141-370-11	s	CAP, CHIP TRIMMER
206)	CV1	1-141-448-21	s	CAP, ADJ
OLD)	CV2	1-141-311-11	s	CAR, TRIMMER 20PF
206)	CV2	1-141-423-61	s	CAP, ADJ
OLD)	CV3	1-141-311-11	s	CAR, TRIMMER 20PF
206)	CV3	1-141-423-61	s	CAP, ADJ
OLD)	RV1	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV1	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV2	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV2	1-237-032-11	s	RES, ADJ, METAL 500
OLD)	RV3	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV3	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV6	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV6	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV10	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV10	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV12	1-241-450-11	s	RES, ADJ, CERMET 50K
205)	RV12	1-237-038-11	s	RES, ADJ, METAL 50K
OLD)	RV13	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV13	1-237-032-11	s	RES, ADJ, METAL 500
OLD)	RV14	1-241-445-21	s	RES, ADJ, CERMET 1K
205)	RV14	1-237-033-11	s	RES, ADJ, METAL 1K

IE-31 BOARD

OLD)	RV17	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV17	1-237-032-11	s	RES, ADJ, METAL 500
OLD)	RV18	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV18	1-237-032-11	s	RES, ADJ, METAL 500
OLD)	RV19	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV19	1-237-035-11	s	RES, ADJ, METAL 5K

LP-66 BOARD

OLD)	1pc	NOT IN USE.		
203)	1pc	3-722-474-05	o	BRACKET, LP
OLD)	2pcs	NOT IN USE.		
203)	2pcs	7-627-556-37	s	SCREW, PRECISION +P2.6X4 TYP

MB-317P BOARD

OLD)	IC102	8-759-996-43	s	IC RC4558PS
205)	IC102	8-759-700-43	s	IC NJM4558M
OLD)	IC121	8-759-996-43	s	IC RC4558PS
205)	IC121	8-759-700-43	s	IC NJM4558M
OLD)	IC122	8-759-996-43	s	IC RC4558PS
205)	IC122	8-759-700-43	s	IC NJM4558M
OLD)	IC401	8-759-700-07	s	IC NJM2903M
205)	IC401	8-759-981-65	s	IC LM2903M
OLD)	C158	NOT IN USE.		
207)	C158	1-162-765-11	s	CERAMIC 1000PF
OLD)	C159	NOT IN USE.		
207)	C159	1-131-381-00	s	TANTAL 47uF 10V
OLD)	C160	NOT IN USE.		
207)	C160	1-131-381-00	s	TANTAL 47uF 10V

PR-176 BOARD

OLD)	C128	1-135-165-11	s	TANTAL 33uF 10% 16V
202)	C128	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
OLD)	DL1	1-415-489-11	s	160nS+8nS
202)	DL1	1-415-489-31	s	DELAY LINE
OLD)	DL2	1-415-489-11	s	160nS+8nS
202)	DL2	1-415-489-31	s	DELAY LINE
OLD)	DL3	1-415-489-11	s	160nS+8nS
202)	DL3	1-415-489-31	s	DELAY LINE
OLD)	R299	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
202)	R299	1-216-061-00	s	METAL, CHIP 3.3K 5% 1/10W
OLD)	R2	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
204)	R2	1-216-637-11	s	METAL, CHIP 270 0.5% 1/10W
OLD)	R98	1-216-043-00	s	METAL, CHIP 560 5% 1/10W
204)	R98	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
OLD)	R100	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
204)	R100	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
OLD)	R177	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
204)	R177	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
OLD)	R342	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
204)	R342	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
OLD)	R343	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
204)	R343	1-216-642-11	s	METAL, CHIP 430 0.5% 1/10W
OLD)	R344	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
204)	R344	1-216-650-11	s	METAL, CHIP 910 0.5% 1/10W
OLD)	S4	1-570-857-11	s	SWITCH, SLIDE
207)	S4	1-570-373-12	s	SWITCH, SLIDE
OLD)	S5	1-570-857-11	s	SWITCH, SLIDE
207)	S5	1-570-373-12	s	SWITCH, SLIDE

PS-162 BOARD

OLD)	A-6723-368-A	o	MOUNTED CIRCUIT BOARD, PS-162
206)	A-8271-736-A	o	MOUNTED CIRCUIT BOARD, PS-162B

SG-152AP/152BP BOARD

OLD)	RV3	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV3	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV4	1-241-445-21	s	RES, ADJ, CERMET 1K
205)	RV4	1-237-033-11	s	RES, ADJ, METAL 1K
OLD)	R40	1-216-055-00	s	CHIP 1.8K 5% 1/10WK
207)	R40	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W

SG-157 BOARD

OLD)	RV8	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV8	1-237-037-11	s	RES, ADJ, METAL 20K

TC-48AP BOARD

OLD)	A-6713-371-A	o	MOUNTED CIRCUIT BOARD, TC-48AP
206)	A-8271-734-A	o	MOUNTED CIRCUIT BOARD, TC-48BP

SV-97AP BOARD

OLD)	IC3	8-759-700-07	s	IC NJM2903M
205)	IC3	8-759-981-65	s	IC LM2903M
OLD)	IC7	8-759-700-07	s	IC NJM2903M
205)	IC7	8-759-981-65	s	IC LM2903M
OLD)	IC15	8-759-700-07	s	IC NJM2903M
205)	IC15	8-759-981-65	s	IC LM2903M
OLD)	IC17	8-759-700-07	s	IC NJM2903M
205)	IC17	8-759-981-65	s	IC LM2903M
OLD)	IC19	8-759-700-07	s	IC NJM2903M
205)	IC19	8-759-981-65	s	IC LM2903M

SY-117CP BOARD

OLD)	R214	1-216-864-11	s	METAL, CHIP 0-OHM
204)	R214	NOT IN USE		
OLD)	IC6	8-759-201-61	s	IC TC40H004F
208)	IC6	8-759-927-29	s	IC SN74HCU04ANS

VA-104 BOARD

OLD)	CV1	1-141-370-11	s	CAP, CHIP TRIMMER
206)	CV1	1-141-448-21	s	CAP, ADJ
OLD)	CV2	1-141-370-11	s	CAP, CHIP TRIMMER
206)	CV2	1-141-448-21	s	CAP, ADJ
OLD)	R215	NOT IN USE.		
203)	R215	1-215-421-00	s	METAL 1K 1% 1/6W
OLD)	RV2	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV2	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV3	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV3	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV6	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV6	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV7	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV7	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV10	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV10	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV11	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV11	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV15	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV15	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV16	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV16	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV17	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV17	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV18	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV18	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV19	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV19	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV20	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV20	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV21	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV21	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV22	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV22	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	R215	1-215-421-00	s	METAL, 1K 1% 1/6W
207)	R215	1-216-651-11	s	METAL, CHIP 1K 1% 1/6W

VDA-11P BOARD

OLD)	CV1	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV1	1-141-423-61	s	CAP, ADJ
OLD)	CV2	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV2	1-141-423-61	s	CAP, ADJ
OLD)	CV3	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV3	1-141-423-61	s	CAP, ADJ
OLD)	CV4	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV4	1-141-423-61	s	CAP, ADJ
OLD)	CV11	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV11	1-141-423-61	s	CAP, ADJ
OLD)	CV12	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV12	1-141-423-61	s	CAP, ADJ
OLD)	CV13	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV13	1-141-423-61	s	CAP, ADJ
OLD)	CV14	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV14	1-141-423-61	s	CAP, ADJ
OLD)	1pc	A-6711-993-A	o	MOUNTED CIRCUIT BOARD, VDA-11P
505)	1pc	A-6711-993-B	o	MOUNTED CIRCUIT BOARD, VDA-11P

VF-50 BOARD

OLD)	RV1	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV1	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV2	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV2	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV3	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV3	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV5	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV5	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV6	1-241-443-11	s	RES, ADJ, CERMET 200
205)	RV6	1-237-031-11	s	RES, ADJ, METAL 200
OLD)	RV7	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV7	1-237-032-11	s	RES, ADJ, METAL 500
OLD)	RV8	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV8	1-237-032-11	s	RES, ADJ, METAL 500

VP-24P BOARD

OLD)	C164	NOT IN USE.		
207)	C164	1-162-964-91	s	CERAMIC CHIP 1000PF
OLD)	D5	NOT IN USE.		
207)	D5	8-719-911-19	s	DIODE 1SS119
OLD)	R107	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
207)	R107	1-215-433-00	s	METAL, CHIP 3.3K
OLD)	R108	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
207)	R108	1-218-484-11	s	METAL, CHIP 750
OLD)	R201	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
207)	R201	1-218-680-11	s	METAL, CHIP 330
OLD)	IC5	8-759-932-14	s	IC CX20030-Z
411)	IC5	8-752-002-99	s	IC CX20030-Z

注意：

下記のシリアルナンバー以降より基板名が変更になったものがあります。従って、このマニュアルに記載されている基板名称を下記のように読み替えてご使用下さい。なお、調整方法及び規格などの記載内容に変更はありません。

NOTE:

The names of some boards have been changed. In this manual old names may be read as new names according to the following table. However, the adjustment procedures and specifications, etc. remain as described in this manual.

BOARD CHANGE INFORMATION OLD NAME ⇨ NEW NAME	SERIAL NUMBER
PS-162 ⇨ PS-162B	30181 AND HIGHER : J 10148 AND HIGHER : UC 40316 AND HIGHER : EK
TC-48A ⇨ TC-48B TC-48AP ⇨ TC-48BP	
SW-291 ⇨ SW-291A	30216 AND HIGHER : J 10158 AND HIGHER : UC 40361 AND HIGHER : EK